

A GENERAL HISTORY OF COMMERCE

BY

WILLIAM CLARENCE WEBSTER, PH.D.

REVISED EDITION

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P R E F A C E

IN writing this book I have had constantly in mind the needs of the student. I have tried, therefore, to tell the story of commerce in a systematic manner, in order that the reader may get clear-cut and accurate pictures of the commercial growth and decay of separate nations, and an understanding of the forces, industrial, racial, and climatic, which have contributed to the steady expansion of the world's trade. A history of the world's commerce is a story of much more than international barter and sale. A nation's commerce is born of its industry and is part of its struggle for the necessities, the comforts, and the luxuries of life. It prospers in peace and is destroyed by war. A historian of the world's commerce, therefore, has no lack of material possessing the greatest human interest. Every war changes the current of his narrative and every period of peace adds to the importance of his subject. If this book is dull, it will be because I have failed to grasp the dramatic elements which the subject presents.

The growth of industrial power in the United States on account of its efficient and enlightened labor, its natural resources, its accumulating capital, and its inventive genius, is making the subject of commerce of present and vital significance in this country. In response to a popular demand it is being given a place in the curricula of our high schools and colleges. It is this demand which I have

specifically sought to satisfy. In order that the needs of different classes of schools may be met, the book is divided into parts corresponding with familiar chronological divisions of the world's history. Teachers who can give sufficient time to the subject can put the student through the entire book; those having too little time for this will find that each part is complete in itself and can, therefore, employ the student upon those parts which may be deemed most important. The book may be used not only as a text-book for schools that have a regular course in commercial history, but it may also be used profitably as a companion book to the text-books used in other schools in their already organized courses in history.

In the study of this subject the importance of collateral reading cannot be too strongly insisted upon. For this reason I have put at the end of each chapter references to the best literature accessible. Teachers will find that the student's interest may often be greatly stimulated by this collateral reading.

The author desires to acknowledge his obligations to Professor Joseph French Johnson, his colleague in New York University, and to Dr. William Fairley, his former colleague in the Brooklyn Commercial High School, for their kindly criticisms made while reading the proof of the following pages. From both of these scholars the author has received many valuable suggestions.

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BROOKLYN, N.Y.

PREFACE TO THE REVISED EDITION

IN preparing this revised edition I have not only endeavored to bring the facts and figures as nearly to the present date as seemed feasible, but I have also given a much more detailed and comprehensive treatment of the recent commercial development of most of the leading nations than was found in the original edition. A few minor changes have also been made in those chapters dealing with the periods preceding the Age of Electricity, but no attempt at a general revision of that portion of the text has been made.

In bringing the facts and figures up to date I have deemed it best to go no farther than the last full year preceding the outbreak of the European War in 1914, except to make a few allusions here and there to some effects of the war already made evident, and to give an occasional hint at some possible future effects of the same. I have chosen that year because it certainly affords a more normal and, in my judgment, a more instructive basis of comparison, both with previous years and with the years to come, than any subsequent year affords, and because it is still altogether too early to predicate the full ultimate effects of the conflict upon the destinies of the nations now at war, and indeed upon the whole world. When this great struggle has ended, and the world has again settled down to something like normal conditions, the full effects

will become more evident. It is the intention of the author, when that time does come, to add a supplementary chapter or chapters showing these effects and indicating the true course of further development. In the meantime, it is believed, the readers of this revised edition can profit greatly by the changes already made in the text.

Mention should also be made of the much more extended lists of references for collateral reading appended to most of the chapters of the book, including many books, documents, and periodical articles written in other languages than English. Although no attempt has been made to prepare a complete and exhaustive bibliography, it is believed that most students will find these references sufficiently comprehensive.

WILLIAM CLARENCE WEBSTER

CHICAGO, ILLINOIS

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COMMERCIAL HISTORY

PART I—ANCIENT COMMERCE

CHAPTER I

INTRODUCTION

1. **What the history of commerce embraces.** The history of commerce is something more than the history of international exchanges; it is really the *history of civilization* from the *commercial point of view*, or, in other words, a *study of commerce in history* in order to see the many reciprocal relations between commerce and the other elements composing various civilizations. The history of commerce will therefore embrace, in the first place, such a general view of the agriculture and manufactures of various peoples as will enable us to understand their commerce. The physiographical basis of commerce must also be carefully studied. We must note the great routes of trade at different periods, the successive marts that have served as commercial centers, and the causes that have shifted these routes and centers. It will be necessary to touch upon the growth of a medium of exchange; the history of colonization; the industrial organization of various peoples and periods; the growth of trading companies; the organization of capital; the influence of slavery; the great geographical discoveries and the great inventions which have increased production and facilitated communication and

transportation ; the influences of æsthetic tastes, religious beliefs and rivalries, social customs, and moral teachings upon human demands ; the attitude of various religious and church organizations towards commerce as a feeder of these demands ; the influence of different economic theories.

2. The relation between commercial and political history is very intimate and must be continually referred to in order to see how commercial considerations have frequently influenced or dictated national policies ; how such considerations have been the fundamental motives for forming and breaking political alliances, for engaging in or avoiding wars ; how commercial relations have led to closer political relations and the growth of a body of international law ; how commerce has even influenced constitutional reforms and revolutions.

3. Sources of information for a history of commerce. Inasmuch as it will be necessary to omit or neglect many important special phases of commercial history in this handbook, the general sources of information for a more detailed study of the subject should be indicated. In the first place, there are the numerous general histories of commerce and the special histories of certain periods and countries. Most of the best histories of this sort, however, are accessible only to those who read German, French, Spanish, Italian, and other foreign languages. Much valuable information pertaining to the commerce of certain periods may be gleaned from political, constitutional, economic, and religious histories, biographies, travels, and periodicals ; but one cannot go very deep into any of the special phases of the subject without carefully studying the original sources. The most important of these are : (1) the laws, ordinances, and decrees of various countries, particularly those pertaining to economic subjects ; (2) tariff and customhouse reports ; (3) commercial treaties and commercial clauses in other treaties and

conventions ; (4) parliamentary debates and reports of different countries, petitions sent to these bodies, and reports of government commissions ; (5) statistics collected by public or reliable private agencies, and the commentaries of statisticians ; (6) reports and proceedings of general and local chambers of commerce and similar institutions ; (7) inventories and ledgers of important business houses, when accessible ; (8) market and crop reports ; (9) trade journals ; (10) writings of great economists ; (11) pamphlet literature on economic subjects ; (12) monuments and inscriptions ; (13) museum collections, especially the moneys, utensils, inventions, and ornaments of different peoples and periods.

4. The origin of commerce. Taking an extreme view we might say that commerce originated when a human demand was first supplied by some other person than the one demanding it. In this sense of the word commerce is practically as old as humanity itself. The few traces which primitive peoples have left behind them furnish proofs of very early commercial relations. The rude caverns of primitive men, even of the Rough Stone Age, have frequently revealed to excavators implements for hunting and warfare made of materials which could not have been procured in those respective localities. In fact, in some instances these implements must have been brought from great distances. When we come to the Polished Stone Age we find an increasing number of such tools and implements in many parts of the world. For example, in many parts of the Ohio valley such articles have been found far away from the places where they must have been manufactured. In a similar manner the primitive "workshops" of Hainault supplied the entire population from the Somme valley to Holland. Explorers in western Europe, Switzerland, Italy, Hungary, northern Africa, and elsewhere have thus found many objects of remote production and manufacture.

Of course the commerce implied in such discoveries was of the rudest sort, and the exchanges of these earliest peoples were undoubtedly fitful in the extreme and limited to products of absolute necessity, such as pottery, tools, and weapons that could not be made at home. The very physical surroundings of these primitive people forbade any further trade and made even such exchanges very hazardous ; for we must remember that it was an age of glaciers, floods, and constant volcanic eruptions. When, however, the glaciers disappeared, the rains diminished, the river beds became more fixed, and men began to rise superior to their animal enemies, human migrations began, and these inevitably produced important effects upon infant industry and commerce. The primitive aptitudes of various peoples became modified by fusion with other peoples. This brought industrial improvement, better food supply, clothing, and shelter. Fish and game were caught and hunted more frequently and easily, animals were domesticated, and pastoral life began. These changes also made it possible to live together in larger societies, and thus villages arose.

This progress was not uniform among all primitive peoples. Some retained their roving habits and most of their primitive savagery, others continued to progress steadily. The latter peoples found fertile valleys and occupied them ; settled abodes and villages were formed, and defenses reared for protection against new arrivals and hostile groups of people. Thus at last tribes and states were formed. Each migrating people carried to its new home its own industrial secrets, the metals which it had learned to use, the cereals, fruits, and domestic animals. Naturally each migrating tribe would try to maintain commercial relations with those left behind, but even yet such intercourse proved very hazardous. Other savage tribes usually held the plateaus, mountains, and pivotal passes, over which trade

would have to go, and brigandage was universally characteristic of these mountain populations. This mountain brigandage, together with river and maritime piracy, remained for a very long time one of the most serious obstacles to the extension of peaceful commerce. In fact, the earlier exchanging expeditions, even in historic times, were usually strange mixtures of war and commerce; slave trading, woman stealing, piracy, and plunder were the forms which they generally assumed. But needs and wants inevitably increased with prosperity, and the more advanced peoples began to build roads and protect themselves against pirates and brigands. Presently a class of intermediaries arose who made commerce a business, peddlers, either singly or in caravans, began to venture back and forth between the districts of production and those of consumption, exchanging the products of different countries. In time these half pirates, half merchants, devised rude media of exchange. Certain races and peoples began to show a singular aptitude for mercantile operations, some on land, some on the sea, some on both. They therefore became the active agents and leaders of commercial progress in the earlier historic periods. It was partly by these intermediaries that the knowledge of copper, bronze, iron, and the other vital necessities of civilization penetrated into the most remote regions. Thus was man brought up from the condition of the brute to that of a civilized human being. At every stage commerce was one of the leading agencies in the transformation.

5. The five great periods of commercial history. The first great period of commercial history began with the entry of important peoples upon the stage of recorded history and extended to the dissolution of the Roman empire, A.D. 476. The second period began with the general and long economic reaction following this catastrophe and extended to the great geographical discoveries of the fifteenth century A.D. The

third, or "Early Modern Period," was ended by the patenting of the first steam engine in 1769. The fourth period, or the "Age of Steam," began with Watt's great invention; and we will try to discriminate a fifth period, beginning with the laying of the great Atlantic submarine cable in 1866, which we will call the "Age of Electricity."

Bibliographies — Sonnenschein's Bibliography of social and political economy is the best guide to English books on the whole field of commercial history. Bowker and Iles's Reader's Guide in Economic, Social, and Political Science has a short bibliography on commerce and its history. The A. L. A. Catalogue gives full bibliographical information concerning popular books in print. Palgrave's Dictionary also has some useful bibliographical information. Roscher's System has many good references. Sanford's Outlines of the History of Commerce gives topical outlines, suggestions, and references. Advanced students will find the best bibliography of ancient and mediæval commerce in *Goldschmidt*, *Universalgeschichte des Handelsrechts*, 3d ed. There are various other bibliographies covering certain countries and periods, some of which will be mentioned in subsequent chapters.

General references — ancient commerce — Of these the student will probably find the following, if available, most useful. *Mayr*, *Lehrbuch der Handelsgeschichte* (bibliography, pp. 345-351), *Speck*, *Handelsgeschichte des Altertums*, I, *Beer*, *Allgemeine Geschichte des Welt Handels*, I, *Cunningham*, *Western Civilization*, I, *Noel*, *Histoire du commerce du monde*, I. These should be used in connection with every chapter on ancient commerce. Consult also *Bourne*, *Romance of Trade*, *Cons*, *Précis d'histoire du commerce*, I, *Lindsay*, *History of Merchant Shipping*, I, *Oxley*, *Romance of Commerce*, *Yeats*, *Growth and Vicissitudes of Commerce*, if available. Further references will be given at the end of most chapters, with authors arranged alphabetically. Full titles will be given only once; subsequent references will be by abbreviated titles or simply by authors. It is perhaps unnecessary to add that some good atlas should be in constant use.

CHAPTER II

COMMERCE OF THE ANCIENT ORIENT

6. The Egyptians. Living in a narrow river valley, hemmed in by deserts and mountains, without harbors or extensive coast line, the Egyptians never overcame their exclusiveness sufficiently to become successful foreign traders. Endowed with an unusually fertile soil and plentiful means of irrigation, they were able to grow an abundance of food and such essential raw materials as flax, cotton, and wool, while copper, gold, and building materials were quite accessible. The Egyptians, therefore, became successful farmers and skillful manufacturers, but felt little need for engaging in foreign commerce. Such articles as they could not themselves produce, as, for example, slaves, furs, hides, gums, fine woods, drugs, spices, and incense, were generally brought by Arabians, Phœnicians, and other foreigners, many of whom gradually formed trading posts within and on the outskirts of the Nile valley. For a time, under the great monarchs of the eighteenth and nineteenth dynasties (1600–1300 B.C.), industrial and commercial expansion followed in the wake of foreign conquest, but even then the Egyptians allowed foreigners to monopolize most of their foreign trade. Long after, Neco II (612–596 B.C.) tried to make Egypt the leading commercial nation of the world. With the aid of Greek naval architects he built two formidable fleets, one on the Mediterranean and one on the Red Sea. The cities of Saïs and Naucratis filled rapidly with Greek merchants. The inland trade of

western Asia, passing through Carchemish and Tyre, came under Egyptian control. An attempt was made to reopen the ancient canal of Sety I and extend it so as to connect the Mediterranean and Red Sea. This undertaking, however, was finally relinquished, and Phœnician sailors were sent out to find another passage between the two seas. Starting down the Red Sea they circumnavigated Africa and, after a voyage of three years, came back to the mouth of the Nile. Unfortunately the practical results of this voyage were not great, and Egypt soon after fell under the yoke of successive foreign conquerors. Nevertheless much of the commerce stimulated by Neco II continued, especially that conducted by the Greeks living in the cities at the mouth of the Nile. It was largely by these Greeks, as well as by the Phœnicians before them, that Egypt's magnificent heritage of art and industrial skill was carried to various parts of the world, there forming an important basis for still greater achievements by later peoples.

7. Ancient commercial cities of the Tigro-Euphrates region. Like the Nile the Tigris and Euphrates rivers were subject to annual overflow; but both rivers, especially the Tigris, were liable to rapid and violent rises, which endangered towns along their banks. A much more thorough system of irrigation canals was necessary for successful cultivation than in the Nile valley; but with such a system the whole valley was splendidly adapted to agriculture, while in the neighboring mountains gold, silver, iron, lead, tin, and copper were found. Consequently agriculture and manufactures thrived in the lower part of this valley in the very earliest historical times. Furthermore, this valley was much more favorably situated for an extensive foreign commerce than the Nile valley, as it was the natural center towards which all the most ancient commercial routes converged. Such cities as Ur, Erech, Eridu,

Larsa, and Sirgalla had commercial connections with Syria, Armenia, the Persian Gulf countries, India, and probably with China, and a banking system had been developed at least as early as 6000 B. C. Under the Assyrian domination Nineveh was for a long time the center of a very large trade, extending in all directions. This city was surrounded by a fertile agricultural region, and numerous manufactures thrived there. Moreover two great international trade routes crossed at that point, one from Armenia to the Persian Gulf, and another running westward from Ecbatana and Media. Babylon, however, finally eclipsed Nineveh and all other cities in this region. She had a better agricultural basis for trade, and the Euphrates, which turned sharply towards the west, was a more international river than the Tigris, thus making the great stream of commerce from east to west flow more naturally through her markets. Susa, Nineveh, Bactra, Thapsacus, Carchemish, Samosata, and many other large industrial and commercial cities finally became her feeders. From India, Bactriana, and China she obtained gold, ivory, jewels, silks, cotton, wool, tapestries, spices, fine woods, and hunting dogs; from Ceylon and the Persian Gulf, pearls; from Arabia, frankincense, myrrh, and other perfumes; from Media, the eastern Mediterranean countries, and elsewhere, lumber, timber, and stone; from Armenia and Asia Minor, wines and oils; from Scythia, hides and furs; from Egypt, flax, grain, cattle, horses, and mules. Nearly all of the maritime trade of Babylon, however, was in the hands of the Phœnicians, and much of her caravan trade was conducted by Arabians, Syrians, and Hebrews. Babylon was not only the leading commercial city in the world for a time, but also the greatest manufacturing center, especially after the fall of Tyre. She manufactured on a large scale many varieties of magnificently colored cottons,

woolens, linens, tapestries, carpets, and coverlets, finely cut gems, fine potteries and porcelains, colored and transparent glassware, perfumed waters, and many other articles. Her industrial products were for many centuries in great demand in every part of the civilized world, and many peoples learned their industrial lessons chiefly from her, either directly or indirectly. Babylon was also for a time the financial center of the world. The records of certain banking firms of that city have been discovered, and they furnish evidence of extensive banking operations.

8. The Persians. Although the Persians were never a commercial people themselves, the conquests of Cyrus, Cambyses, and Darius hastened the commercial fusion of all the peoples brought under their domination. Some important cities like Babylon declined, but others arose rapidly and through the energy of foreign traders became great commercial centers. Susa, in particular, profited greatly by the Persian domination. At the other end of the empire Sardis became a very prosperous industrial and commercial city. Crowds of workmen of all nationalities flocked there, and all the products of the known world were sold in her markets. Cyrus established throughout his empire roads, defenses, relays, stations, and a postal service, all of which were perfected by Darius. Great fairs flourished at all important places, and each halting place on the route from Susa to Sardis became a market. From Sardis three important routes branched to Cyrene, Smyrna, and Ephesus. In another direction the canal of Neco was made navigable, and the commercial routes from the Sudan, Libya, and the Red Sea were again active. Scylax of Carianda made a voyage from the Indus to the upper end of the Red Sea, exploring the resources of the countries along the way. Darius, imitating the Lydians, issued gold and silver coins called darics, which were

used throughout the western portion of the empire. Thus under Persian domination commerce profited greatly from the new means of communication and transportation, the greater security established, the knowledge acquired by exploration, the more general use of coined money, and the extension of commercial relations by conquest. The death of Xerxes (465 B.C.) was followed by a period of political disintegration and consequent commercial decline, lasting until the conquests of Alexander the Great (334–323 B.C.). Alexander perceived the importance of commerce and did much to revive it, but died too soon to carry out his plans. Seleucus Nicator (312–280 B.C.), his successor in the Tigro-Euphrates region, also encouraged trade, especially with India. Seleucia was built on the west bank of the Tigris, about forty-five miles north of Babylon, and soon became the greatest center for trade with India and the Far East. The Seleucidæ also founded many other commercial cities. Again, however, the tide of fortune changed. The western portion of the kingdom of the Seleucidæ was incorporated into the Roman republic (63 B.C.), and the eastern portion was gradually absorbed by the Parthians. Under Parthian rule Seleucia, with her neighbor Ctesiphon, just across the river, retained her commercial supremacy in the Tigro-Euphrates valley, and for a time also under the New Persian, or Sassanian, monarchy, established A.D. 226. Finally, Ctesiphon usurped the commercial position of Seleucia, owing chiefly to the terrible devastations of the Romans in the latter city, and retained this position until conquered by the Mohammedans. Farther east, Persepolis was a very important commercial city during the Parthian and Sassanian ascendancies, as was Tadmor or Palmyra farther west.

9. The Phœnicians were commercially the most interesting and important people in the ancient Orient. In their

original home along the Persian Gulf, near the Bahrein Islands, they developed at a very remote date a thriving fishing industry and traded with other peoples living along that gulf, in the lower Tigro-Euphrates valley, and farther east. As civilization spread westward they pushed in the same direction, up the Red Sea, through the Nile valley, until they found the valuable fisheries and other resources of the eastern Mediterranean. Their new home was very small, but the land between the rugged coast and the Lebanon mountains yielded grain, while the mountain slopes were suitable for orchards and vineyards. The food supply thus afforded could be supplemented quite easily by importations from Palestine. The mountains in their rear and the rocky coasts protected them from invasion, while the clefts in the latter afforded secure harbors. Furthermore, the mountains yielded copper and large quantities of cedar and pine timber, the shores afforded plentiful materials for glass blowing, and the fisheries furnished both edible fish and the shellfish called murex, from which a valuable purple dye was extracted. Thus nature invited the Phœnicians to become shipbuilders and skillful navigators, and afforded not only food but also the raw materials necessary to start them on their industrial career. What raw materials their manufacturers could not secure at home their merchants and sailors soon found in the neighboring islands, and ultimately brought from every part of the known world. The trading connections already established in the East by the Phœnicians were continued and extended after their navigation to their eastern Mediterranean home. At the same time they then found themselves more favorably situated for playing an important part in the commerce of the rising western countries. Here, along the shores of the Mediterranean, was a new world with rich and unexplored native resources, and

the Phœnicians were to be its first great commercial pioneers. Numerous projecting peninsulas and almost numberless islands, scattered through the entire length of this sea, beckoned the adventurous explorer westward, and the enterprising Phœnician trader gradually pushed his eager search for new sources of supply and demand, not only through this sea to Spain, but even past the Pillars of Hercules, northward along the western coast of Europe and southward along the western coast of Africa.

Sidon was for many centuries the chief city of Phœnicia. Her merchants and sailors took the lead in opening the eastern Mediterranean countries to commerce. They first found their way to Cyprus, attracted thither by the rich veins of copper, as well as by the silver, iron, pine, and cedar found there. From Cyprus they worked their way along the coasts of Asia Minor and among the adjacent islands, founding important trading posts in Rhodes, Lesbos, Crete, Melos, Thera, Cythera, Eubœa, Thasos, and other islands. Although they seem to have preferred the islands as places for stations, they established some on the mainland; as, for example, at Astyra, Corinth, Thebes, and a few places on the Thracian coast. The Sidonians also pushed through the Bosphorus into the Black Sea countries, where they found abundant supplies of wool, tin, iron, grain, fish, furs, slaves, and amber, brought thither from central Europe. In the Ægean islands they found a great variety of resources, the most important of which were slaves, gold from the mines of Thrace, Thasos, Thera, Cythera, and Melos, and the volcanic clay of Thera and Melos, which made these islands the greatest pottery centers of the Phœnicians. Gradually the Greeks grew bold and strong enough to resist the Sidonian monopoly of the Black Sea and Ægean countries, and after a long and fierce struggle they remained masters of the field. What

the Sidonians lost in these regions, however, was compensated for by what the Tyrians found in the western Mediterranean and more remote countries. Already the latter, while sailing westward from Crete, had discovered Sicily and found their way thence to Sardinia and Spain. Just as Sidon began to decline, therefore, Tyre began to prosper. In Spain her merchants found rich supplies of silver and tin, and founded Gades (Cadiz), Tarshish (Tartessus), and numerous other trading posts. In the other western Mediterranean countries they were also very active, establishing commercial stations at Utica, Hippo, Carthage, Narbo, and many other places in Sicily, Sardinia, southern France, and northern Africa. In western Africa they established many trading posts, whence they secured the characteristic products of that region. They even pushed northward, probably as far as Cornwall and the Baltic countries, bringing thence tin, grain, wool, hides, furs, fish, copper, and amber. To cap the climax they circumnavigated Africa, while sailing under the authority of Neco II. Tyre not only became the leading commercial city of the world, but she also excelled all others for a time in the extent and quality of her manufactures; in fact, a large part of her extensive commerce served as a feeder for her manufactures. Her traders exploited every known region in their search for raw materials. The tin from Cornwall, Spain, and the Caucasus was brought home to be mixed with the copper of Cyprus and other countries, thus enabling the skillful Tyrian metal workers to supply many oriental cities with their matchless bronze statues and ornaments. The other hardware and metal trades were similarly fed by the gold, silver, and iron brought from various parts of the world. Wool was brought from the Black Sea countries and the river valleys of Asia Minor; the home supply of murex was supplemented by fishing off the coasts of Bœotia and



AN ANCIENT TYRIAN VESSEL

Cythera; with the wool and dyestuffs thus procured the Tyrian textile industries were able to flourish most brilliantly. Other important home manufactures also thrived upon raw materials secured by Tyrian traders in numerous places. Tyre, however, like her sister Sidon, was doomed to decline and ultimate decay. The numerous internal troubles during the ninth century B.C., together with the wars in western Asia and the subjection of Phœnicia to Assyria, caused an extensive emigration of merchants and manufacturers from Tyre to Carthage, which soon became the chief city of the Phœnicians. Gradually, also, the Tyrians lost their control over their sources of supply for raw materials and became enervated by excessive luxuries and indulgences. Owing to these and other causes Tyre continued to decline and was ultimately conquered by Nebuchadnezzar, and later by Alexander the Great; but even after she lost her industrial and commercial supremacy she continued to be a somewhat important intermediary between the Orient and the West.

10. The Hebrews, especially during the reign of Solomon, became quite an important commercial people. The territories controlled by that monarch were intersected by many of the most important trade routes, and he in many ways encouraged his people to engage in foreign commerce. During his rule the Hebrews even engaged in maritime commerce in conjunction with the Phœnicians, sailing as far as Tarshish in the West, and down the Red Sea to Ophir. The chief commercial work of the ancient Hebrews, however, was to supplement the maritime commerce of the Phœnicians by becoming for a time their most important auxiliary caravan traders.

11. The Far East. Authentic information concerning the earliest trade of India, China, the intervening Asiatic coast, and the East India islands is very meager. We do

know, however, that in very early times many articles from these remote regions were carried to the countries farther west; that some of this merchandise went by water, some by caravan; that Bactria was for many centuries the chief center of the caravan trade with the Far East; that native coast traders brought wares from the Far East and unloaded them into Phœnician and Arabian vessels, probably at some point not far distant from the mouth of the Indus. Fairs and markets existed throughout the Far East at a very early date, and there must have been a quite extensive interchange of commodities between the different sections of that region on account of the great diversity of agricultural, mineral, and manufactured products.

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CHAPTER III

COMMERCE OF THE GREEKS

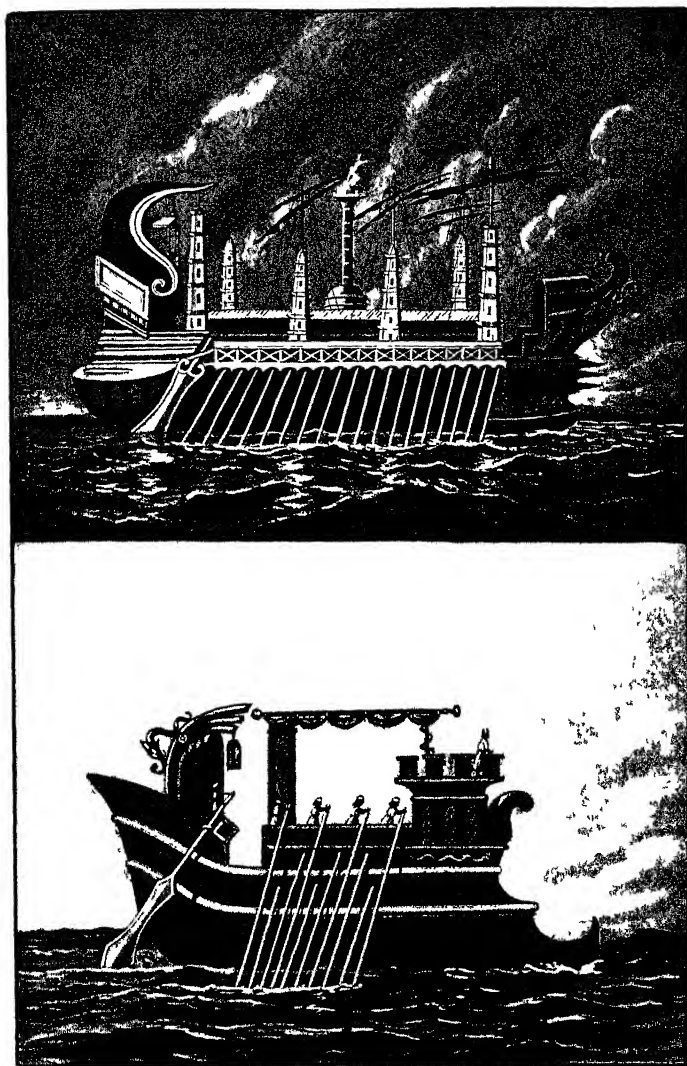
12. Geographical influences almost compelled the Greeks to engage in commerce and maritime enterprises. The peninsular form of their country and the numerous deep bays and inlets gave them an extensive coast line and numerous harbors; their wooded mountains furnished them ample materials for ships; countless islands tempted them to explore in every direction. When the Greeks obtained control of the Black Sea they were able to establish trade relations with Persia by way of the northern route along the Caspian. They were also well situated for receiving products from Russia and central and northern Europe by the various river-valley routes. Numerous mountain chains afforded them protection from land invasion. These mountains, to be sure, cut Greece into many small states and prevented national unity; but the very fact that land empire was geographically almost impossible hurled some of the Greek cities the more forcibly into commercial and maritime enterprises. The soil and climate of Greece and the adjacent islands favored the growth of grapes and olives, as well as a great diversity of other foods and raw materials, and these were gradually supplemented in the numerous colonies. The Greek world as a whole, therefore, afforded ample natural resources for an extensive commerce. Geography also determined very largely the direction of Greek colonization. The western coasts of the peninsula are mostly rocky, while the eastern coasts abound with harbors. Thus

Greece faced eastward, and Greek colonization consequently first turned in that direction. Then, by a rebound, the Greek settlements in Asia Minor, facing westward, naturally sent out colonies in that direction, far beyond the mother country into the new world growing up in the western Mediterranean.

13. Influence of the Phœnicians. If geographical influences were not strong enough to push the Greeks into commerce and maritime enterprises, they were not left without a further incentive in the form of their Phœnician teachers, who tutored them in industry, commerce, and navigation. Gradually the pupil became the rival of his teacher, and ultimately excelled him in nearly every line of activity, — in agriculture, shipbuilding, colonization, commercial methods, finance, architecture, and art, as well as in all phases of immaterial civilization.

14. By various waves of migration the Greeks gradually occupied the Ægean islands and the entire Asia Minor coast, and built there many flourishing industrial and commercial cities. Miletus rivaled Tyre in the manufacture of woollens, conducted an extensive caravan trade with Sardis, Susa, and other eastern cities, sent her ships as far as Spain, and founded numerous colonies and trading posts. Smyrna and Ephesus also became great industrial and commercial centers. In the adjacent islands the chief commercial cities were Samos, Mitylene, Chios, and Rhodes.

15. The Greeks also established themselves in Thrace, the Chalcidice, the Thracian Chersonese, and on the shores of the Propontis, the Bosporus, and the Black Sea. Their most important settlements in this region were Potidæa, Amphipolis, Olynthus, Byzantium, Cyzicus, Sinope, Trapezus (Trebizond), Phasis (Poti), Dioskurias (Iskurieh), Pantikopaion (Kertsch), Tanais (Azov), and Odessus (Odessa). From Thrace, the Chalcidice, and Thasos they obtained gold



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and silver; from the Black Sea countries they secured large quantities of grain, fish, timber, gold, iron, tin, red lead, wool, hides, furs, hair, honey, wax, salt, amber, and slaves, in exchange for wines, cloths, and other manufactured goods.

16. The Greeks in northern Africa. For a long time Greek trade with Egypt was confined to smuggling, but in the seventh century B.C. the Milesians secured a factory at Canopus. During a revolution in 630 B.C. they established themselves forcibly at Naucratis, and subsequently obtained royal protection. This city at the mouth of the Nile rapidly became a great center for maritime trade. Farther west the Greeks planted various colonies, the chief of which was Cyrene. This city, with its port Apollonia and its rich agricultural resources, became very prosperous and founded four others, the entire group being known as the Pentapolis. These five cities carried on a very active land and maritime trade with Egypt, Nubia, the interior of Africa, the Grecian peninsula, Asia Minor, and Italy. From these various colonies in northern Africa the Greeks obtained wool, sheep, horses, grain, oil, saffron, dates, amethysts, onyxes, and sylphium, giving in exchange chiefly wine, wheat, and Greek cloths.

17. The Greeks in the West. Gradually the whole southern coast of Italy was lined with Greek cities, the most important of which were Cumæ, Sybaris, Croton, Tarentum, Rhegium, and Metapontum. These cities grew so wealthy from their prosperous trade and industries that they were collectively called Magna Græcia. The rich resources of Sicily also attracted Greek settlers, and many prosperous cities, such as Syracuse, Agrigentum, Messana, Megara, and Naxos, were founded there. From Italy the Greeks extended their commerce and colonization along the coast to southern France and northeastern Spain, the most

important city in this region being Massilia (Marseilles). It was from Massilia that Pytheas started on his famous voyage to the legendary "land of Thule," sailing through the Pillars of Hercules to northern Europe. In these western Mediterranean countries the Greeks obtained silver, tin, wool, wines, grain, cattle, hides, leather, oils, fruits, beeswax, and pitch in exchange for cloths, hardware, potteries, and bronze, silver, and gold ornaments. In all this western commerce the Greeks had to contend with the power of Carthage and ultimately with that of Rome.

18. Athens and Corinth were the most important commercial cities in the Grecian peninsula. Corinth owed much of her prosperity to her favorable position; with a port on each side of the isthmus she naturally attracted a large amount of Mediterranean trade. In order to avoid the longer and more dangerous voyage around the Peloponnesus, light vessels were hauled from one port to the other, while the cargoes of larger ships were unloaded in one port and reshipped in the other. At the same time Corinth excelled in manufactures of various kinds. During most of the sixth century B.C., therefore, Corinth was the leading commercial city in Greece, and she was able to retain much of her extensive trade long after Athens and other Grecian cities had decayed. In the fifth century, however, Athens eclipsed all the other Grecian cities in manufactures and commerce. The efforts of Solon to attract foreign artisans and merchants and the successful outcome of the Persian wars gave a great impulse to the economic as well as to the political life of this city, which had been most active in the defense of Greece. By the time of Pericles, therefore, Athens was manufacturing for home use and export large quantities of hardware, arms, potteries, woollens, and works of art. On the other hand, she imported gold, silver, copper, tin, precious stones, timber, horses, hides, furs, wool,

papyrus, fish, spices, perfumes, wine, oil, table delicacies, linens, tapestries, fine woods, white and black slaves, and immense quantities of grains. The three principal maritime routes for her commerce were (1) along the Grecian and Thracian coast to the Black Sea countries, (2) across the Ægean to Chios and Lesbos, and (3) to Egypt and Cyrene by way of the Cyclades, Rhodes, Cyprus, and the eastern Mediterranean coast. Athens was also for some time the financial center of the Greek world, and her capitalists and money changers continued to prosper even after she lost her commercial ascendancy. The industrial, commercial, and political supremacy of Athens was as brief as it was brilliant. The jealousy of her commercial rival, Corinth, and other causes soon brought on the Peloponnesian War (431-404 B.C.), which destroyed Athenian supremacy. During the fourth century B.C. Athens again became an active industrial and commercial center, but she was no longer supreme. Rival cities like Corinth, Byzantium, Rhodes, Cyzicus, and Heraclea gradually drew away a large part of her trade. The rise of Sparta to supremacy, however, was a distinct check to maritime enterprise, for this city discouraged trade.

19. The Hellenistic period. The conquests of Alexander the Great (332-324 B.C.) gave a new impulse to Greek commerce, producing an effect not unlike the Crusades. They brought the East and the West into contact, substituted the use of money for barter throughout Egypt and a large part of the Orient, and brought into circulation large amounts of Persian specie that had long been hoarded. Alexander seems to have perceived clearly the importance of commerce, for he attempted to foster it in many ways: he founded Alexandria and about sixty Greek colonies, which were intended to be commercial centers as well as military stations, many of which became important cities; he

projected a great commercial city at the mouth of the Euphrates and one at the mouth of the Indus; he planned a canal between the Black Sea and the Caspian; he organized an expedition for circumnavigating Arabia, and reopened the old sea route from Babylon to India. The work begun by Alexander, but cut short by his untimely death, was partly carried out by the Ptolemies and the Seleucidæ. Alexandria became, under the Ptolemies, the greatest center for trade passing from India and Arabia to the Mediterranean countries. Agriculture was revived in the Nile valley, and large quantities of grain were shipped through Alexandria; Lake Copais and the old canal between the Red Sea and the Nile were drained; roads were constructed across the desert from Berenice and Myoshoimas to Coptos; efforts were made to clear the Red Sea of pirates; Harpalus discovered, or rediscovered, the courses of the monsoons, and fleets then took advantage of them in crossing the Arabian Sea. The Seleucidæ also, as we have seen, gave a strong impulse to commerce farther east. They founded numerous cities, chief among which were Seleucia and Antioch. Rhodes was, during this period, the most important city of the Ægean and developed a code of maritime law in connection with her extensive trade.

20. Internal trade of Greece. Fairs and markets existed throughout Greece and were regulated and protected by the laws of the states where they were held. The fairs were generally held in connection with religious festivals, and the pilgrimages that were made to the more famous shrines were accompanied with a considerable amount of trade. The interior of Greece was thus intersected by a network of routes running in every direction from the various cities and shrines: from Athens, Corinth, Megara, Chalcis, Dodona, Olympus, Delphi, Argos, Sparta, etc. An officer, called a proxenus, who performed duties similar

to those of our modern consuls, was employed in most of the Greek cities.

21. Greek commerce on the whole exerted a very great influence upon the development of civilization. The attempt to create a Greek empire failed, but many of the Greek colonies and cities remained for a long time great centers of industry and commerce. Unlike the Phœnicians, the Greeks developed the native resources of their colonies and made them great civilizing centers and the prosperous homes of free peoples. The Greeks became better ship-builders and sailors than the Phœnicians; they were also better financiers. The Greek rose immeasurably above the Phœnician in his ideal of the proper use of wealth. The Phœnician spent his wealth in sensual and sensuous indulgence; the Greek, in giving the world masterpieces in literature, philosophy, sculpture, and architecture. These were the greatest and most characteristic contributions of the Greeks, and we should not forget that these were made possible largely by the wealth derived from commerce.

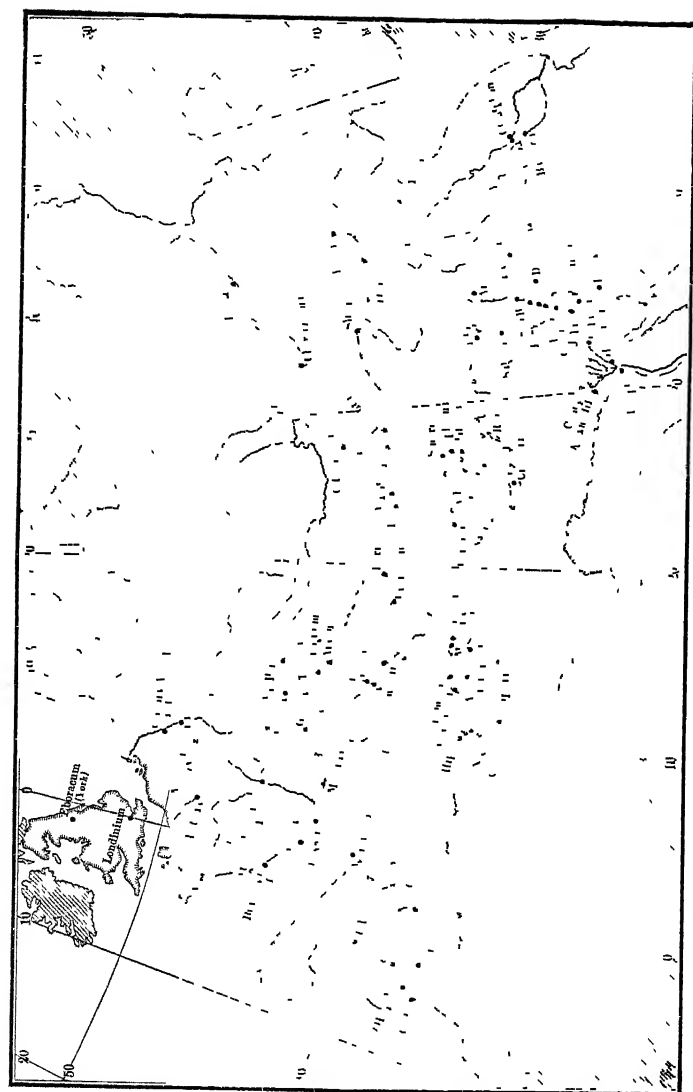
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CHAPTER IV

COMMERCE OF THE ROMANS

22. The struggle for supremacy in the western Mediterranean. Three important peoples preceded the Romans in the struggle for supremacy in the western Mediterranean, — the Etruscans, Greeks, and Carthaginians.

I. *The Etruscans* founded Adria, Mantua, Bologna, Ravenna, and other cities in the Po valley, and, pressed by the Gauls, they finally crossed the Apennines into Etruria and Campania, where they formed two powerful confederations, subjected a large part of Italy to their rule, and developed a flourishing agriculture, industry, and commerce. Populonia, opposite the iron mines of Elba, became a great center for hardware manufactures and numerous foreign exchanges; Adria and Spina received amber and other northern products through their ports on the Adriatic; Bolsena and Soracte were the great interior markets whither the Latins brought their beasts and slaves. The Etruscans were skillful navigators and shipbuilders, and probably sailed as far as Cornwall for tin. Their principal exports were painted vases, bronze lamps, golden cups, arms, and various copper and bronze articles, which were sent to Sicily, Carthage, and Greece in exchange for the manufactures of Athens, Corinth, Egypt, Miletus, and Babylon. The Etruscans, however, for various reasons, rapidly lost their ascendancy over the Gauls, Samnites, Romans, and the Greeks in southern Italy. After their decline the struggle for supremacy was, for a time, between the Carthaginians and Greeks.



CHIEF COMMERCIAL CENTERS OF ROMAN EMPIRE (SECOND CENTURY A.D.)

II. *Carthage*, situated in the very heart of the rapidly growing western world, possessing two fine harbors, and inheriting the industrial skill and much of the wealth and trade of Tyre, developed very rapidly after the middle of the ninth century B.C. Her agriculture was probably the best managed and most flourishing known in ancient times, and her manufactures were varied and extensive. Gradually all the Phœnician colonies in the West were brought under her control and many others established. She conquered eastward as far as Cyrene and westward as far as Gibraltar; she established numerous trading posts on the western coast of Africa and in the interior; she exploited the mines and other resources of Sicily, Elba, Sardinia, Corsica, the Balearics, Spain, and far-off Cornwall; her ships carried to the Orient her most valuable manufactures and scattered throughout the West numerous agricultural and industrial products. With the wealth secured from her trade and industry Carthage sought the political domination of the western world, and this ambition brought her into collision with the Greeks and Romans

III. *The struggle between the Greeks and Carthaginians lasted for several centuries, but the climax came in the war with Pyrrhus (282–272 B.C.).* This king was trying to do in the West what Alexander had done in the East, and he readily championed the Greeks in Italy against the Romans, and those in Sicily against the Carthaginians. In this war the Romans and Carthaginians stood together, but the latter profited most by the defeat of Pyrrhus. For a short time it looked as if Carthage would surely become supreme in the West.

IV. *The struggle between Rome and Carthage.* But, while the war with Pyrrhus gave Carthage control of Sicily, it also gave Rome control of southern Italy. The two rising powers of the West were thus brought face to

face, with only a narrow strait separating them. It did not take them very long, therefore, to discover that they were deadly enemies: in less than ten years the First Punic War, or the "War for Sicily," had begun (264 B.C.). Other grounds for dispute gradually arose, and a long struggle for supremacy ensued — a struggle between two hostile and utterly different civilizations: that of Carthage, backed by enormous wealth; that of Rome, by patriotism and magnificent military discipline. It was very fortunate for the world that Rome triumphed in this struggle; for the Carthaginians could never have spread Greek civilization, while the Romans did this, and benefited the world in many other ways.

23. Geographical position and early economic development of Rome. Rome, the victor over Carthage, was not well fitted by her geographical position to become a great maritime power. The city had been founded about eighteen miles from the coast on the river Tiber, the navigation of which was hindered by its rapid current and the frequent alterations in its course. The early port of Ostia was frequently injured by floods, and the Romans were very tardy in making secure harbor improvements. Ships touched this port with difficulty and were forced to discharge their cargoes into small flatboats, which carried them thence to Rome. On the other hand, Rome was well situated from a military standpoint and as an interior market for a rich and extensive region, and much of her early prosperity was due to her interior and coasting trade, as well as her agriculture; but it was not until after the Punic wars that Rome took a definite position as a maritime power. As late as 306 B.C. she acknowledged by treaty the maritime supremacy of Carthage. Her first commercial fleet was not formed until about sixty years before the First Punic War, and this fleet plied only between Ostia, Sicily, and

Carthage. By 267 B.C. the fleet had become important enough to require the appointment of four quaestors for superintending its operations. One effect of the Punic wars was to reveal to Rome the need of a navy, and from that time her maritime power developed in connection with her further conquests. But it was by conquering and incorporating maritime cities, whose trade was generally left in the hands of those who had already developed it, that Rome became a maritime and commercial city, rather than by the commercial enterprise of her own citizens. From the Punic wars to the establishment of the empire there was nothing like such an industrial and commercial development in the Roman territories as one would naturally expect to find in such a rapidly growing state. Certain conditions, however, inevitably increased the commerce centering in Rome during this period and caused a certain amount of industrial development. For one thing, Rome was becoming more and more dependent upon her provinces and other countries for her supply of grain. Again, although some manufactures had existed in Rome even at a very early date and others were slowly developed after the Punic wars, Rome at the close of the republic was still dependent upon other cities for most of her manufactured goods. These facts, coupled with the rapid growth of the city and the modifications of Roman tastes by conquests and foreign influences, necessitated a larger foreign trade to feed the increasing demand for foreign products; but the actual development during the later republic was not commensurate with the possibilities.

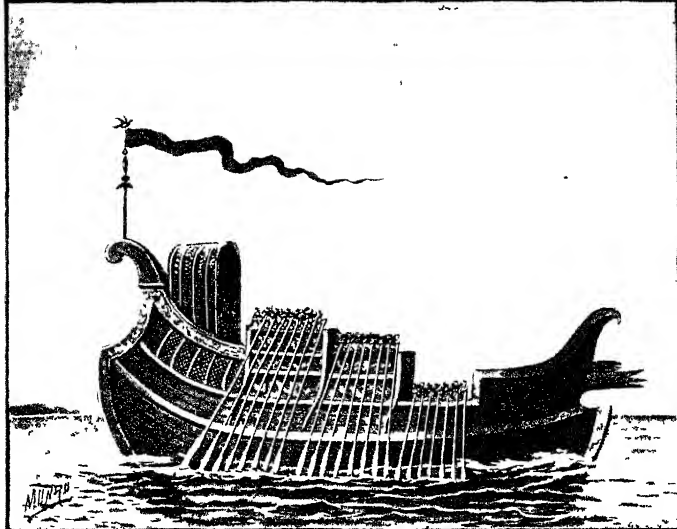
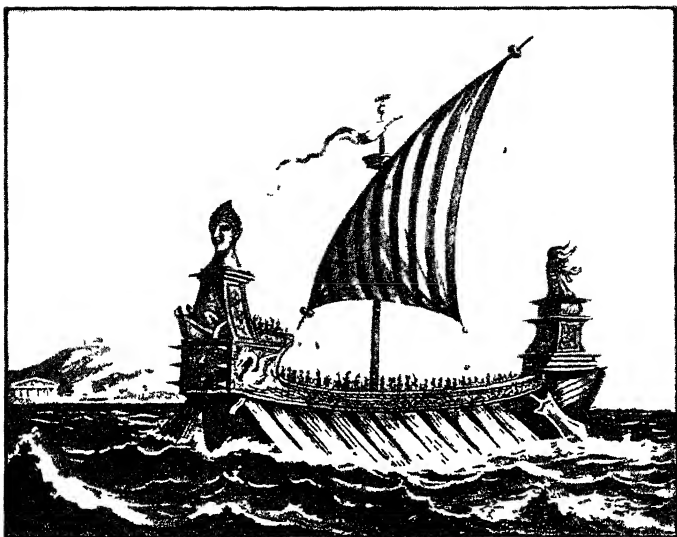
24. The economic conditions at the close of the republic. These had become so bad as to almost stifle industry and seriously check commercial development in the Roman territories. One reason for this was that Roman capitalists found other enterprises more lucrative and attractive

than the development of Roman commerce and manufactures. The senatorial aristocracy, for example, preferred speculative farming. The small farmer class had in various ways been driven to the wall, and in their place had grown up vast estates (*latifundia*) worked by slaves. The senatorial landlords, who owned these estates, produced large quantities of wines, oils, and wool, and many of them exported their produce in their own ships; but they did not deign to engage in any further trade. They derived ample profits from their large estates, and, like the English landlords of the eighteenth century, they practically governed the state. Far more dangerous to normal industrial and commercial development, however, was the unbridled exploitation of the Roman territories by speculators and contractors, either singly or in associations. Instead of employing their capital legitimately in developing industry and commerce, they loaned money at exorbitant rates of interest,¹ robbed the government through their contracts for supplying the armies and building public works, or, under the guise of collecting taxes, shamelessly exploited the provinces, extorting all they possibly could from their helpless victims. By the close of the republic these speculators and contractors were rapidly exhausting many of the most fertile and resourceful regions under Roman rule. To make matters worse, there were numerous civil wars provoked by rival ambitious generals, and lawlessness in all its worst forms prevailed throughout the Roman territories, reaching its climax in Rome itself. From the standpoint of maritime commerce, one of the worst forms of lawlessness was the extensive practice of piracy. From their headquarters in Cilicia the pirates were able to send out about one thousand strongly equipped galleys, and no merchant fleet nor any of the Mediterranean coasts were

¹ Even the "virtuous" Brutus exacted forty-eight per cent.

free from their terrible ravages. In all parts of the Roman world, therefore, in every line of activity, was felt the need for peace, order, and the restraint of extortionate and greedy capitalists.

25. Industrial and commercial revival under the early empire. Just at the close of the republic the economic conditions had been improved somewhat by the power of Julius Cæsar and Pompey's brilliant victory over the Cilician pirates, but it was reserved for Augustus to inaugurate a new industrial and commercial era in the Roman world. He reestablished peace and order from the Danube to the deserts of Africa, from the Euphrates to the Atlantic. The sphere of activity of contractors and speculators was curtailed, and nearly all public business that had formerly been conducted by them for private gain was placed in the hands of efficient imperial officers. A careful census was regularly taken as a basis for more rational taxation, and scrupulous accounts were exacted from public officials. Civil wars were repressed; piracy was checked and maritime routes rendered safe; lighthouses and other harbor improvements were made; splendid roads were built to the farthest limits of the provinces; a postal system was established; artisans were protected and the legal status of small farmers was improved; the agricultural, mineral, and industrial resources of the provinces were developed. The natural result of this improved system of administration was an intensely active commercial movement throughout the Roman world and even beyond its limits. The two centuries following the triumph of Augustus at Actium (31 B. C.) may be considered the golden age of Roman industry and commerce. During this period the wants of about one hundred million people were provided for, and many large cities prospered on the industries and commerce necessary to gratify these wants. Rome naturally



ANCIENT ROMAN VESSELS

was the center of this vast trade; the whole world was ransacked to provide this imperial city with necessities and all conceivable luxuries. At the same time the luxuries of Rome raised the standard of living and created a taste for luxuries throughout her dominions, and the new tastes stimulated agriculture, manufactures, and commerce. Tertullian wrote: "The world becomes every day better cultivated and richer; everywhere routes, everywhere commerce; former deserts are transformed into pleasant domains; they now work where once were only forests; they sow where there was only sand; they drain marshes; there are to-day more cities than there were houses formerly."

26. Roman manufactures. Rome never became a really great manufacturing city. Her imports vastly exceeded her exports, and only a very small portion of her exports were manufactured articles. Numerous articles for home use, however, were made in Rome in large quantities, chiefly by foreign artisans living there. These homemade articles were mostly such luxuries as fine furniture, carvings, moldings, lace, embroideries, metal work, fine potteries, glass, paper, and books.

27. Sources of Roman imports. Imports poured into the imperial city in vast quantities from all parts of the world. In the West the harbors of Cadiz, Narbo, and Marseilles were continually crowded with vessels laden with goods destined for Rome. From Cadiz and Spain came wool, silver, gold, copper, iron, wheat, wine, fruits, oil, honey, wax, dyes, pitch, salt, oysters, pork, cured hams, and horses. Various towns in Gaul, like Toulouse, Bordeaux, Rheims, Arles, Nîmes, and Lyons collected large quantities of produce and sent it to Narbo and Marseilles by way of the Roman roads or river routes. Into these ports were thus gathered, for shipment to Rome,

cattle, salted pork, honey, millet, wheat, oil, wines, fruits, coarse tunics, and linens from Gaul, and tin, lead, iron, cattle, leather, slaves, pearls, oysters, and hunting dogs from Britain. From northern Italy came pitch, millet, wine, wool, hogs, honey, wax; gold from Aquileia; and carpets, cloaks, and hangings from Padova (Padua). From Germany and the Baltic countries came amber, furs, iron, and slaves, by the route across the eastern Alps. From Sicily came wheat, cattle, wool, and honey. The products of northern Italy and Germany reached Rome through the port of Ariminum; those from Narbo, Marseilles, Cadiz, and Sicily, chiefly through the port of Puteoli, but sometimes through the port of Ostia.

The products which Rome received from the East were many and varied. From Greece came large quantities of horses; from Lesbos and Chios, honey and wine; from Cyprus, copper and figs; from Athens and Corinth, perfumes, bronzes, marbles, and various fine fabrics; from Miletus, Ephesus, and Smyrna, cloths, carpets, rugs, gold embroideries, and works of art; from the Black Sea countries, wool, furs, hides, grain, gold, emeralds, and slaves, from Syria and Phœnicia, purple goods, cedar, cedar oil, and glass; from the Persian Gulf, pearls and fish; from Arabia, India, Persia, Bactria, and China, silks, furs, precious stones, crystals, perfumes, spices, incense, and gold; from Egypt and Numidia, wheat, various kinds of cloth, embroideries, and Alexandrian colored glass; from the northern coasts of Africa and the interior, grain, horses, wild beasts for the arena, hides, furs, slaves, ivory, ostrich feathers, and gold. In many parts of the Roman world fisheries were maintained to supply Roman tables; poultry, game, and vegetables were also brought in large quantities from numerous sources. The chief eastern centers for trade with Rome were Corinth, Antioch, Alexandria,

Ephesus, Smyrna, and Miletus. Most of the products from these cities reached Rome through the port of Puteoli.

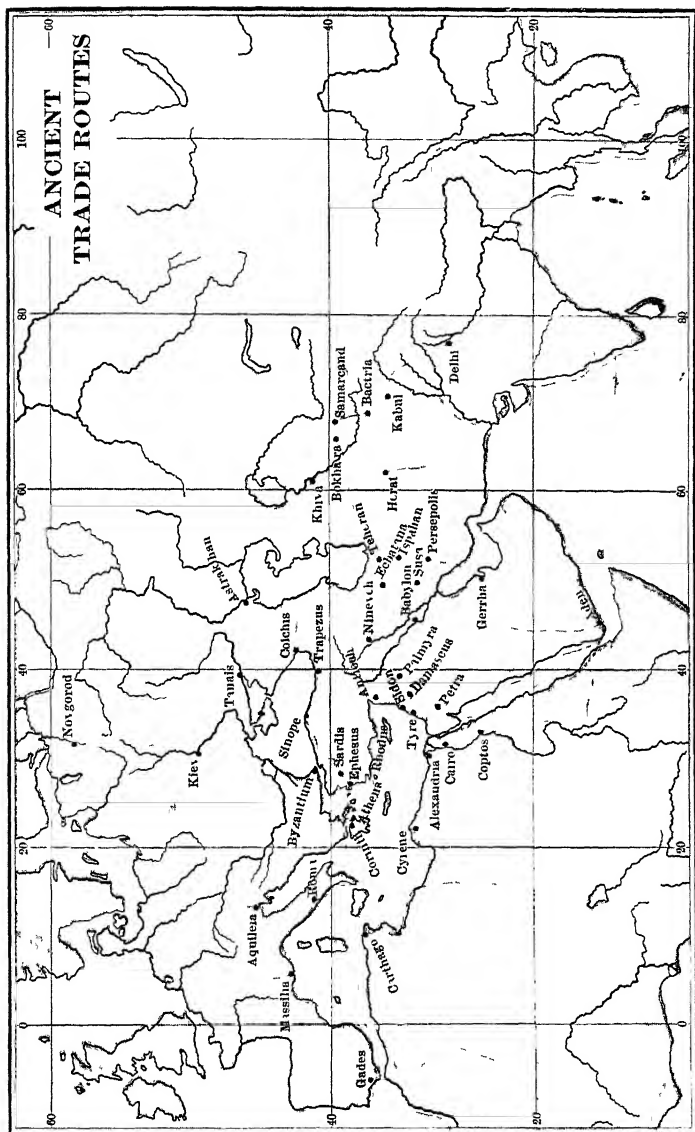
28. Economic decline during the later empire. Great as was the revival during the first two centuries of the empire, agriculture, manufactures, and commerce were not even then in a thoroughly healthy condition, and during the later empire there was a steady and appalling economic as well as political decline. We can attempt only a partial enumeration of the causes for this decline. For one thing, there was a steady decrease in available capital. The money supply was inadequate; there was a steady drainage of specie, especially silver, to India, China, and Arabia, to pay for luxuries; vast sums were squandered, not only in personal luxuries, but in unproductive public works. Furthermore, there were frequent governmental depreciations of the currency, which made prices uncertain and hindered commercial transactions. Men, therefore, became unwilling to risk their savings as capital in productive enterprises, and immense quantities of specie were hoarded "for better days which never came." This steady decrease in available capital and the consequent ruinously high rates of interest inevitably caused a decline in agriculture, manufactures, and commerce; large tracts of land were left uncultivated, and laborers of all kinds failed to find employment. Another important factor in this economic decline was the fact that the government checked private enterprise more and more by restrictions and regulations of trade and industry, by governmental monopolies, and by the regulation of prices and wages. The government workshops employed chiefly slaves and criminals, and in this way, as well as in others, free laborers were crowded to the wall. To make matters worse, in proportion as industry, trade, and wealth declined, the burden of taxation became heavier. Alexander Severus, for example, went so far as to impose the *aurum negotiatorum*, a license

tax varying from two to seven per cent, levied every five years upon all persons engaged in business of any kind, except day laborers and those who sold the products of their own lands. Thus, while the provinces under the later republic were exhausted by the unchecked extortions of private capitalists, they were ruined during the later empire by the excessive pressure of public burdens and by the inefficient and expensive administration.

Parallel with the decline in Roman agriculture, manufactures, and commerce was the decline in the vitality and even in the numbers of the Roman population. One of the most important causes of this was the prevalence of such physical vices as drunkenness, gluttony, and licentiousness. Everywhere, especially in the cities, these vices produced their natural effects. The Roman people decreased in numbers, became physically weaker, and lost their energy, will power, self-reliance, and heroism; and these were precisely the qualities that Rome needed most in resisting the barbarians. The decline in population is also explained by the scarcity of employment for free laborers, their competition with slave labor, the poor incentives for reproduction among the slave population, and such natural calamities as plagues, earthquakes, and volcanic eruptions. Another important cause for the economic decline of Rome is found in the practice of feeding the poor from public storehouses and in the policy of supporting public games, both of which were serious drains upon the resources of the state and led directly to a great decrease in production, a pauperization of the people, and a consequent decline in the vitality, public spirit, and numbers of the population.

References.—*Adams*, Law of Civilization and Decay, 1-35, *Amer. Hist. Rev.*, XVIII, 233, Mercantilism and Rome's Foreign Policy, *Gilbart*, Works, V, 88-120, *Heyd*, I, *Mommsen*, History, I-IV; *Ibid.*, Provinces of the Roman Empire, especially I, chaps. 2-5, 7, 8; II, chaps. 12, 13.

— ANCIENT —
TRADE ROUTES



PART II—MEDLÆVAL COMMERCE

CHAPTER V

WESTERN COMMERCE TO THE TIME OF THE CRUSADES

29. The Middle Age inherited from the ancient world a rich economic legacy which included the knowledge of many mechanical arts and inventions, and much patiently acquired industrial skill; a knowledge of agriculture; vast accumulations of capital, thousands of farmhouses and barns, numerous kinds of implements, money, and many other forms of wealth; much pioneer work already done in the ruder regions of the Roman empire and along its frontiers,—drained swamps, cleared forests, improved lands, etc.; roads and bridges; a knowledge of navigation; an industry and commerce already organized.

30. This legacy, however, was not left intact after the barbarian invasions. The organization of commerce was partly destroyed, many of the old routes becoming insecure and the former business connections partially broken; much capital was wasted by bandits or marching armies; farms were ruined, harvests destroyed, animals driven off by foragers, villages and cities pillaged and burned; the means of internal communication were seriously impaired; large amounts of currency were forced out of circulation; the legal and social condition of the farmers and artisans was lowered. For several centuries some of the finest agricultural regions of Europe were left untilled and desolate, and came under the domination of a new population of

much lower civilization, with few wants, accustomed mostly to barter rather than money, with little knowledge of commercial methods.

31. One may very easily exaggerate, however, the industrial and commercial decline following the barbarian invasions. The so-called "Dark Ages" were by no means as dark as frequently pictured. Commerce and industry were not killed. In all the Mediterranean countries there was a considerable commerce even during the darkest periods. In the fifth century, for example, Syrian and Jewish merchants could be counted in large numbers at Marseilles and Narbo, while merchants from Paris were known in the eastern Mediterranean countries; Greek was spoken fluently in the market at Arles; Frisians, Saxons, Jews, and Syrians attended the fair of St. Denis. In the sixth century a relay of posts still existed throughout Gaul, and the ports of southern Gaul exported considerable quantities of grain, wine, vinegar, rock salt, wax, honey, and metals, and imported silks, purple goods, spices, ivory, and various other articles from Italy, Byzantium, Asia Minor, and the Orient.

32. Several circumstances favored the continuation of commerce after the dissolution of the Roman empire. In the first place, we must remember that many of the invading tribes were already accustomed to pastoral life, simple forms of agriculture, and frontier traffic, and their savage instincts were held in check by their more civilized brethren who had already settled in the empire. Then, too, the closing of the Roman customhouses along the frontiers was taken advantage of by enterprising traders, and this was a partial offset to the increased risks and dangers from marauders. The risks of the merchant were further compensated by the high prices secured for his wares. The merchant of this period led a comparatively limited

demand, but it was a very strong one and insured correspondingly large profits. At no time was the period so dark but that the kings, nobles, and wealthy demanded numerous articles of luxury and display. The Church also proved to be one of the best and steadiest customers of the early mediæval merchants ; it soon developed an elaborate system of frequent and brilliant festivals, and in order to do so had to purchase spices, vestments, and other articles in increasing quantities. Another strong demand sprang from the desire of all wealthy people to invest their surplus grain, cattle, and other bulky products, not only in luxuries for their own immediate use, but in such articles as would store great value in small space and thus serve as a means of investment and hoarding. To such people gold and silver ornaments, rare potteries, precious stones, and costly fabrics served as the government bond investments of this insecure period, and the strong demand for this form of investment served as a stimulus to commerce.

33. Justinian's conquests in Italy, Africa, and Spain during the sixth century greatly benefited commerce. The pirate fleets of the Vandals were swept from the Mediterranean, and the conquest of Italy helped to perpetuate commercial relations between the Orient and the Occident. During the next two centuries these western provinces were lost to the Eastern empire, but the commercial connection remained unbroken until the Crusades.

34. The Italian cities profited most by the conquests of Justinian. Amalfi at first took the lead among these commercial cities of Italy. Splendidly situated on the Gulf of Salerno, she soon established factories throughout southern Italy and extended her trade to Egypt, Syria, Greece, Constantinople, and the Far East. The origin and progress of Venice, however, was more remarkable: founded in the

fifth century by refugees fleeing from Attila, on a most unpromising site, the city gradually developed an extensive commerce and finally became the queen of the Adriatic. Taking advantage of their position as the natural outlet for the agricultural and industrial products of the Po valley, and their large supply of fish and salt, for which there was then a very strong demand, the Venetians soon worked up a profitable trade along the Adriatic coasts and up the Po River and its tributaries, exchanging their two staple products for grain, wine, oil, lumber, metals, and various manufactures. Gradually they extended their trade into Germany and the eastern Mediterranean countries. The Venetians, however, did not neglect their salt and fish industries even after they became important carriers between the East and the West; in time they secured a monopoly in salt and controlled the salt supplies of Germany, Hungary, Sicily, northern Africa, and the Black Sea countries. Among the other Italian cities which gradually became important commercial and industrial centers during the earlier centuries of the Middle Age were Genoa, Pisa, and Milan, the latter city, however, being noted chiefly for her manufactures.

35. Some of the rulers of western Europe during the centuries immediately following the dissolution of the Roman empire made laudable efforts to encourage industry and commerce. Chief among these were Theodoric, Dagobert, Ebroun, and Queen Brunehaut; more or less important revivals of trade and industry occurred during each of their reigns.

36. The revival under Karl the Great (768-814) was the most important one in the West before the Crusades. Through the activity of such missionaries as Willibrod and St. Boniface much pioneer work had already been done in Germany: forests had been cleared, marshes

drained, agriculture begun, and a rude border trade developed between various tribes. Under Karl the Great this development was vigorously continued in all parts of his empire: agriculture was encouraged in many ways and domestic manufactures were developed. Although Karl desired each estate to be economically self-sufficient and issued several edicts which tended to discourage commerce, his conquests paved the way for an extension of commerce, and many of his measures encouraged trade. Within the empire there was a certain amount of exchanging of the characteristic products of each province, but commerce consisted chiefly of trade between the East and the West. During the reign of Karl important overland routes were developed through the Rhine and Danube valleys, and such commercial centers as Mainz, Magdeburg, Erfurt, Nuremberg, Ratisbon, Passau, and Vienna arose along these routes.

37. The darkest period of commerce during the Middle Age followed the death of Karl the Great (814). When his strong hand was removed his empire broke into feudal fragments; numerous civil wars arose; the Normans invaded the North and East; the Saracen pirates scoured the Mediterranean and many of its coasts; the Hungarians marched through Germany even into Burgundy. Thus the various maritime and land routes to the East were cut off, commercial towns were pillaged, crops and dwellings were burned, the cattle and sometimes even the population were carried off by marauding bands. Frequent plagues, floods, and storms brought crop failures and consequent famines; for example, we read of forty-eight years of famine in central Europe between the years 970 and 1040. These frequent famines not only produced great suffering, but they caused the starving peasants to organize into bands which rendered travel and trade still more insecure. Furthermore,

tolls were rapidly multiplied during this period: there were ten on the River Garonne, sixty on the Rhone and the Saône, seventy-four on the Loire between Nantes and Rouen. At the entrance of every fief, at the passage of every bridge, it was necessary to pay a fee. 'Woe also to the foreign merchant who happened to tarry too long on one domain!' By the *droit d'aubaine*, if he stayed longer than a year and a day he lost his liberty and became a serf. Commerce inevitably suffered a serious decline during such a period.

38. During the eleventh century, however, in spite of all obstacles, commerce began to revive in the West. The agricultural and industrial basis for commerce had greatly improved in many parts of western Europe, and the political basis was beginning to improve. Interior trading was increasing at the various fairs and markets throughout Europe, and cattle, grains, wines, fish, tools, utensils, coarse cloths, and some luxuries were exchanged at them. At the same time maritime and caravan trading were being developed quite rapidly, especially by the Italian cities. Just then occurred the Crusades, which were destined to revolutionize the commerce of Europe.

References — For references on mediæval commerce, see Chapters XII and XIII.

CHAPTER VI

EASTERN COMMERCE

39. There was a marked contrast between the East and the West during the first half of the Middle Age. While western Europe was falling to pieces politically and being split into infinitesimal feudal fragments; while it was full of ignorance, superstition, and coarseness; while most of its people lived in the rudest kinds of dwellings; while pigs wallowed in mud in the principal streets of many of its leading cities; and while even its kings and queens lived amid material conditions that to-day would be considered filthy even for the middle classes, we find in the East during the same period magnificence, luxury, polish, and refinement. In no respect was the contrast more striking than in the relative condition of agriculture, manufactures, and commerce.

40. The Persians, after many vicissitudes, had inherited a large and rich portion of the ancient empire of Alexander the Great. They had continued and gradually extended the commercial relations which, since the times of the Seleucidæ, had been regularly carried on between India and the Euphrates valley. For about four centuries just preceding the establishment of the Mohammedan empire, the Persians had been the chief caravan intermediaries for the three great empires upon which they bordered, viz., China, India, and the Greek empire. Ctesiphon, their capital, became immensely wealthy and overflowed with luxuries of every conceivable kind, which were produced by her

numerous manufacturers or brought there by her extensive commerce.

41. The Eastern empire. Constantine chose a strategic place for his new capital when he selected the ancient Greek town Byzantium. The surrounding country was full of rich resources, and whatever was produced in Europe, Asia, or Africa could easily be brought by the varying winds to the port of Constantinople. Constantine, during his lifetime, expended enormous sums in his effort to make his new capital equal the ancient glories of Rome, and his successors continued the work until a point of development was reached that makes it difficult to say which of the two was the greater metropolis. Justinian gave a great impetus to the industrial and commercial development of the Eastern empire by the introduction of silkworms. Cyprus and Sicily soon produced large quantities of silk, and the Peloponnesus presently became known as the Morea, because of the large number of its white mulberry trees. Another source of wealth in the earlier days of the Greek empire was the extensive maritime trade of the Greek marine, which continued to dominate the Mediterranean for several centuries. What trade the Greek merchants lost in the West on account of the unsettled conditions prevailing there, was counterbalanced by the rapid growth of Constantinople, whose increased wealth and population created a correspondingly large demand for articles which could only be supplied by an extensive commerce with the Far East. At first this Greek trade with the Indies was conducted over the ancient maritime route by way of Alexandria, but the gradual extension of Mohammedan conquests soon compelled the Greeks to supplement this maritime trade with the caravan trade of the Persians and Arabs. After the capture of Alexandria by the Moslems, the trade between the Eastern empire and

the Far East was conducted chiefly over two caravan routes: (1) the one through Syria, by way of Aleppo, Antioch, and Damascus, (2) the more roundabout one from the Black Sea ports through Tartary. In another direction the Slavs were gradually subdued sufficiently to admit of trade with Russia and the interior of Europe. The tribes along the Danube and the Dnieper rivers furnished Constantinople with large quantities of honey, wax, furs, wool, grains, and slaves. A commercial route passing by Kiev and Novgorod up the Dnieper and down the Oder bound the Bosphorus to the Baltic. At the mouth of the Oder a trading post was established where the city of Stettin now stands, and this was made the basis of trade with Scandinavia. From Novgorod and Kiev traders penetrated into Russia, and at Kiev this trade connected with that extending through the Danube and Rhine valleys. After Constantinople, Thessalonica and Trebizond were the most important commercial cities of the Greek empire. Thessalonica possessed extensive manufactures and carried on an extremely active commerce. Trebizond was for a long time the frontier city between the Greek and Mohammedan empires. There, contrary to the usual Christian policy, Mussulman and Christian exchanged numerous products. There were other important manufacturing centers in the Greek empire, such as Salonica, Thebes, Corinth, and Patras.

42. The rapid growth of the Mohammedan empire is one of the greatest marvels in history. In the seventh century Mohammed suddenly transformed the scattered and half-savage Arabian tribes into a nation and sent them forth with blazing enthusiasm upon an unparalleled career of conquest, which did not stop until most of western Asia, all of northern Africa, Spain, and even a part of Gaul were brought under their sway,—in all an empire more than

four thousand miles in length. The Arabs were not only transformed into a conquering nation, but their cities soon became the greatest centers of civilization in the world and remained so for several centuries. The fierce religious fanaticism which they displayed on many battlefields did not render them insensible to the seductions of luxury. Their manufactures therefore led the world in variety and beauty of design and perfection of workmanship; their merchants pursued their search for luxuries more zealously and to more remote regions than any others. The palaces, churches, and gardens of Bagdad and Cordova excelled those on the Tiber and the Bosphorus in riches, magnificence, and the accumulation of all that could delight the senses.

43. The Koran, bearing the stamp of its merchant author, far from discouraging and proscribing commerce as did the leaders of the Christian church, declared that it was agreeable to God. In this fact we find one important explanation of the marvelous rapidity and extent of Mohammedan conquest, for Mohammedanism conquered by commerce as well as by the sword. Mohammed certainly displayed remarkable sagacity in appealing to the commercial instinct, for he thus held out one of the most attractive inducements to converts.

44. Damascus, the capital of the Ommiads, was famous for her manufactures of rich fabrics, brocades, tapestries, tent curtains, silks, and tempered blades, and became for a time the greatest market in western Asia.

45. Bagdad, under the Abassids, replaced Damascus as the capital of the empire, and for about three centuries was the richest and most magnificent city in the world. She was better situated for commerce than Damascus, as she commanded important water as well as land routes of trade. In her palmy days she probably had about one

million inhabitants, and abounded with numerous fairylike palaces filled with the choicest tapestries, magnificent furniture, fine stuffs brocaded with gold, silver, and precious stones, silks and other beautiful textiles, bronzes, gold and silver ornaments set with jewels, magnificent potteries and glassware, fine leather ware, and bric-a-brac of every conceivable kind, which were either made by her artisans or imported by her merchants. Her vaults were filled with gold and silver, her schools with wise men from all parts of the world. The chief basis of all this wealth and prosperity was a land and maritime commerce that extended to all parts of the world — to India, China, the East Indies, northern and interior Africa, Armenia, Russia, Spain, and the Baltic countries. Her commerce was fed by numerous manufacturing cities within the empire, as well as by those of other cities, as, for example, Mosul, Shiraz, Balkh, Kabul, Ghazni, Bokhara, Samarkand, Basora, Alexandria, Cairo, Kairowan, Fez, and the Spanish cities.

46. Alexandria, which had been for some time the chief commercial intermediary between the East and the western Christian states, suffered some from a decrease in this trade during the first centuries of Mussulman domination, but she soon made up for this loss by developing quite an extensive commerce with the valley of the upper Nile and the eastern coast and the interior of Africa. From the factories established at Melinde, Mombasa, Kilwa, Sofala, and Mozambique, she received gold dust, ivory, shells, feathers, and black slaves. Even in this direction, however, she was ultimately checked by the growth of Fez and Kairowan.

47. Cairo, under the Moslems, on the other hand, competed in splendor with Bagdad. Caravans arrived there from all parts of Asia and Africa, and transactions were conducted in her bazaars on a truly gigantic scale. Agriculture

and industry prospered and furnished a good basis for her commerce. The ancient canals of the Ptolemies were opened and various industries resurrected. Through Cairo were shipped to the East large quantities of grain, textiles, embroideries, saddlery, harnesses, leather, mantels, goat hair, and slaves.

48. **Kairowan** scarcely acquired the commercial position held by ancient Carthage, but with her two ports she played a part of considerable importance in the commerce of the Mohammedan empire. Into the interior of Africa she extended her commerce even farther than did Carthage, and was for some time the great center for the prosperous trade of the Mohammedan countries bordering on the western Mediterranean, Tripoli, Algiers, Tunis, Sicily, and Spain.

49. **Fez**, founded a little way in the interior, finally eclipsed the other cities in northern Africa. Her artisans manufactured large quantities of fine leather, linen, soaps, essences, bronzes, and hardware. Her merchants traded all along the northern coast of Africa and into the interior as far as the river Niger. In her most flourishing days Fez contained six hundred mosques and a population of about five hundred thousand.

50. **Mohammedan Spain.** It is from the Arab civilization in Spain, the material remains of which are so much better preserved than those of the Orient, that we can now ascertain best what arts and industries the Mohammedan empire possessed, and to what an extent its people employed their fancy and skill in satisfying their devouring appetite for beautiful material surroundings. There, too, was displayed most strikingly the contrast between Mohammedan civilization and the contemporary barbarism existing just across the Pyrenees in Christian Europe. Cordova, the capital of the Spanish caliphate, was a large

and magnificent city with many thriving industries and a very extensive commerce. Other cities, like Granada, Seville, and Toledo, rivaled her in magnificence though not in size. These cities, together with Malaga, Almeria, Cadiz, Murcia, and Cuenca received products from all the remote countries of the world. Arabian Spain, on the other hand, had an abundance of products to exchange for all that she might desire which was not produced by her own industries. There were the leathers of Cordova, the arms of Toledo, the draperies of Murcia and Cuenca, the silks of Granada, to mention only a few of her most famous manufactures; there were the numerous products of her fertile valleys and well irrigated plateaus, her sugar cane, rice, cotton, silk, palms, famous flowers and vegetables; and there were the rich mineral resources of her mountains.

51 The legal basis of Arabic commerce was, on the whole, comparatively liberal. Customs duties and carefully scheduled taxes on merchants were levied in all the Mohammedan countries, but commerce could scarcely have attained such vast proportions as it did in those countries, had it been restrained by really vexatious regulations and restrictions.

52 The Arabs made some very important permanent contributions to the commercial development of the world. In the first place, their splendid agriculture and manufactures gave a great impulse to western Christian industries. In textile fabrics they have never been surpassed; they worked with marvelous skill in all the metals,—gold, silver, copper, bronze, iron, and steel; their leather, glassware, potteries, linen papers, tinctures, essences, sugars, syrups, dyes, etc., were much finer than those made in any other part of the world. In all these industries the Christian manufacturers learned their best lessons from the Mohammedan peoples.

The Mohammedans were scientific farmers ; they had excellent systems of irrigation, understood the values of various fertilizers, practiced rotation of crops, and knew how to graft and produce new varieties of fruits and flowers. In agriculture and horticulture also, the western nations learned valuable lessons from the same teachers. The Mohammedans also exerted a permanent influence upon commercial development by their scientific and geographical knowledge ; by their development of commercial routes which are not even yet worn out ; by their extension of international relations ; by their use of a medium of international exchange ; by their maintenance of roads, construction of bridges, digging of wells along their caravan routes, and other practical public works. Unfortunately the good features of Arabic civilization were ultimately destroyed by the Turkish peoples, who adopted Mohammedanism and gained political control over the Mohammedan world. The civilization developed by these peoples was undoubtedly such as to check industrial development and stifle commercial enterprise , but we should not let the evils of Turkish Mohammedanism blind us to the many great things accomplished by the Arabian Mohammedans in industry, commerce, art, science, and literature.

CHAPTER VII

THE CRUSADES

53. There were many motives underlying the Crusades, religious, political, and economic, but none were more important than the commercial motives. Before the Crusades began many western pilgrims and adventurers, struck with the eastern fever, had gone to various countries of the East; some had remained, and those who returned incited their neighbors by their liberally embellished stories of eastern wealth and magnificence. The merchant, therefore, was not far behind the pilgrim, and the gains of traffic were already attracting large numbers eastward. During the century preceding the Crusades the commerce between Constantinople and the West increased quite rapidly. The Italian cities, in particular, were profiting by this trade. Venice had obtained special commercial concessions at Constantinople, and had already begun a very lucrative trade with eastern Moslems as well as Christians, especially in western merchandise, Indian products, and slaves captured in both Christian and Mohammedan countries; Amalfi traded extensively with Karrowan, Alexandria, Constantinople, and Syria; Pisa and Genoa were also developing, though more slowly, on account of the Moslem opposition in Sicily, Sardinia, and the Balearics. In short, everything presaged, in spite of religious differences and the papal interdict upon commerce with the infidels, a continuous development of commercial relations between the Orient and the Occident, when the progress of the Turks and the dismemberment of

the caliphate of Bagdad substituted for the mild and tolerant domination of the Arabians a despotic tyranny. The danger of having their commerce stopped by the encroachments of these half-savage fanatics made the western Mediterranean cities very willing to aid and encourage the crusading movement. This danger to commerce gave a solid backbone to the Crusades, and to an increasing extent the commercial motives came to dominate these movements.

From the very beginning Venice, Genoa, Pisa, and Marseilles took a very active part in the conquest of Syria. For all their services these would-be "protectors of the Cross" were rewarded liberally by exemptions from trading dues in many countries, by grants of territories commercially strategic, by cessions of commercial quarters in conquered cities, and frequently by large money payments. Their religious zeal was always more than counterbalanced by their commercial shrewdness and aptitude for driving sharp bargains. Their quarters soon became real cities in themselves, with churches, fine residences, baths, warehouses, markets, and various kinds of mills. Western fortune hunters were very busy in these eastern cities collecting vast quantities of merchandise and plunder to take back to their native countries. Acre became the principal port of the Kingdom of Jerusalem; from this port were secured the products of central Asia, Tibet, India, China, the East India islands, Arabia, and Africa,—musk, camphor, spices, rhubarb, incense, pearls, ivory, etc. Tyre and Beirut were also important ports that were frequently visited; Ascalon and Jaffa had lively markets. An active trade was kept up between all these ports and the great Mohammedan cities of Damascus and Aleppo, whence merchandise was brought either by the Venetians or by the Orientals themselves. Tripoli, in northern Africa, was soon surrounded, as it were, by a wall of merchants of all countries, and in her

warehouses were found rich and varied products. At Constantinople also, the Venetians, Genoese, and Pisans obtained quarters which were made the basis of a valuable trade.

54 The ascendancy of Venice during the Crusades. After the Fourth Crusade the capture of Constantinople, instigated by the commercial interests of Venice, gave that city an incontestable commercial preponderance in the East. She also received the choicest slices in the partition of the Eastern empire which followed. The curious title taken at this time by the doge accurately describes the Venetian share of this partition, — “Lord of Three-Eighths of the Roman Empire.” In this way Venice obtained Peloponnesus, Cyprus, Candia, Durazzo, Corfu, Patræ, Naxos, Andros, Eubœa, and other islands, all of which were of considerable commercial importance. The principal independencies of the Archipelago united with Venice for the suppression of pirates, and her commerce was thus rendered more secure and capable of extension. Candia, in particular, proved very valuable on account of her strategic position and her rich natural resources. The Venetians obtained from this island each year hundreds of shiploads of grain, honey, wax, and wines. From Constantinople the Venetians extended their commercial operations into Asia Minor and the Black Sea countries, building the important town of Tana at the mouth of the Don as a basis for their Russian trade. For some time, therefore, Venice had a practical monopoly of the trade between the West and the Far East, and of that with the Black Sea countries. But she was not destined to be left undisturbed in this monopoly. Her good fortune soon began to excite jealousy and enmity. By a very shrewd stroke of policy, Genoa and Pisa became the chief agents in the restoration of the Eastern empire (1261), and their services were amply rewarded. The restored emperor granted liberal commercial privileges to these

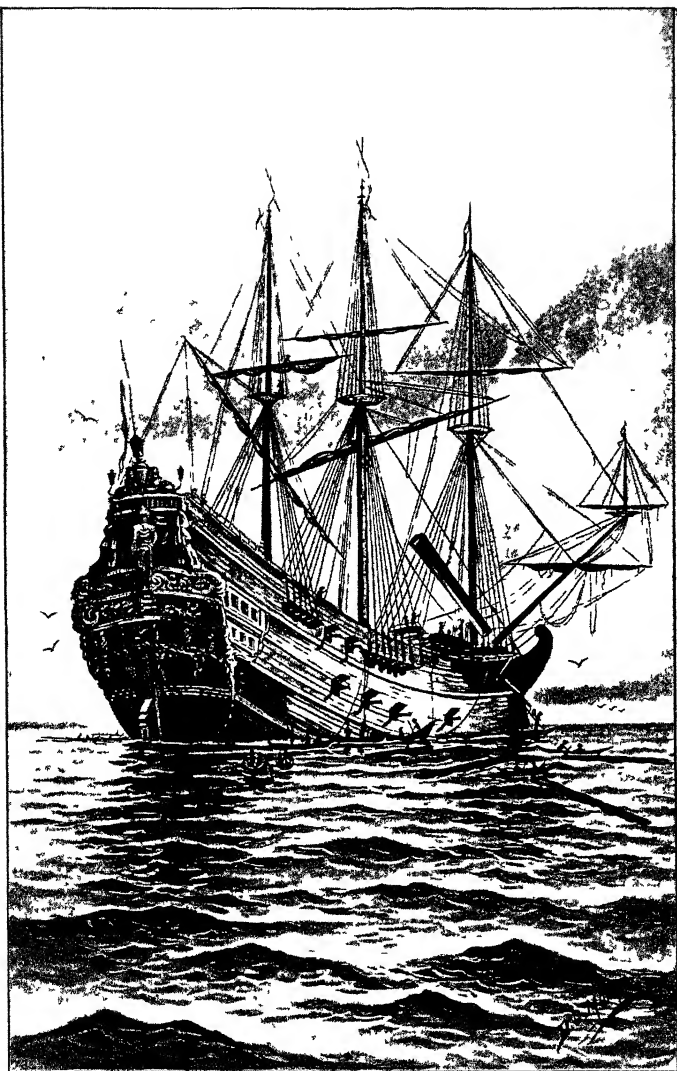
cities, so that they were able to compete successfully with Venice. Genoa also founded Kaffa in opposition to Tana, and the Venetians were soon driven from Constantinople and the Black Sea countries. This was a serious blow to Venice, but she at once entered more zealously into her trade with her eastern Mediterranean ports and developed more extensive commercial relations with the Far East through Alexandria. Neither was her commerce through these ports seriously interrupted by the fall of the Latin kingdom, which was the closing scene in the romantic drama of the Crusades.

55. **The results of the Crusades.** The Crusades served as a great awakening force in western Europe. Throughout the period an intense excitement prevailed, everybody, those who went to the East and those who stayed at home, was stirred by a deep enthusiasm. Such a ferment of thought and feeling was certain to set all the wheels of progress in motion and lead to achievements in every direction. The Crusades gave to those who took part in them the very great advantage of travel, and to a certain extent these advantages were reproduced among those who stayed at home. Western Europeans learned for the first time that there were people in the world far superior to them in knowledge, government, manners, and in many of the elements of material and immaterial civilization. A corresponding desire to rise to this superior condition of the East was awakened. { The crusaders went to the East "to kill horned devils, they returned to imitate the fine gentlemen } whom they found there. Furthermore, the Crusades ultimately produced political results the most momentous. Feudalism was finally undermined and destroyed because the Crusades had ruined or killed thousands of feudal nobles. In the place of the feudal nobility was gradually developed a wealthy and powerful third estate, which was

to become the most important factor in the politics of every European country. Upon this third estate as a foundation were to be erected powerful absolute monarchies, and in time constitutional monarchies and republics. Such results as these are truly magnificent to contemplate, but we must remember that these results were not immediate. Europe had still to wade through oceans of blood before these tendencies set in motion by the Crusades reached their development.

On the other hand, the industrial and commercial effects of the Crusades were more direct and immediate. We have already seen that the Italian cities during this period built up for themselves a large carrying trade in many directions. Other cities in Europe, in a lesser degree, profited in the same way. Consider also that the Mussulman, during the Crusades, taught the western Christian many valuable lessons that were to aid him greatly in extending his commerce. The European learned in the East, and in his trips to and from the East, invaluable lessons in navigation. Western Europe began to imitate many of the Mohammedan manufactures, such as the beautiful cloths of Damascus, the canopies of Bagdad, the muslins of Mosul, the satins and glassware of Tyre, the tapestries of Persia and Syria, the fine leathers of northern Africa, the potteries, enamels, and metal ware of various oriental countries. The cultivation of certain eastern agricultural products had already been introduced into Sicily and southern Italy, and during the Crusades these valuable transplantings were extended throughout all the southern portion of western Europe and even in the north. Such important agricultural products as sugar cane, rice, mulberry trees, Indian wheat, plums, apricots, lemons, pistachios, watermelons, sesame, shallots, and saffron were introduced into various western countries. Windmills and

other inventions were brought from the East and applied to western industry. Europeans also learned valuable geographical lessons from the oriental scholars and in their long journeys to and from the East. The extensive exploration of western Asia in the thirteenth and fourteenth centuries by European travelers, of whom Marco Polo is the most familiar example, was a direct and immediate effect of the Crusades. In one word, the Crusades taught the West the use and production of many new commodities, created new needs and demands, opened new markets, revealed new trade routes, and in numerous other ways quickened and increased the commerce of the West with the East and of the various European countries among themselves.



A GENOESE VESSEL

CHAPTER VIII

THE ITALIAN CITIES FROM THE CRUSADES TO THE RENAISSANCE

56. The period from the Crusades to the Renaissance was the brightest in the commercial history of the Italian cities. Italian unity was still only a dream of a few enthusiasts and the political condition of many of these cities was deplorable, but they "lived a life all the more intense because it was in conformity with the natural aptitudes of each section" Freed from the task of creating an Italian nation, the enterprising men of this period threw all their energies into the accumulation of wealth by industry and commerce; this wealth brought refinement, culture, and luxury, and made Italy the leader in the development of a higher civilization. Three cities during this period merit our special attention, viz., Genoa, Venice, and Florence. Although there were numerous other cities engaged in trade and manufactures, they were comparatively unimportant, except as feeders of these three.

57. Genoa, as we have seen, became commercially preponderant at Constantinople, in the Archipelago, and on the shores of the Black Sea, at the time of the restoration of the Greek empire (1261). Not only were the Genoese thus freed from the competition of the Venetians in these regions, but their victory over the Pisans at Meloria (1284) freed them from another rival, and the popes also for some time gave their support to the Genoese.

On account of her position and size Constantinople was the most important eastern center of Genoese commerce.

There were exchanged in large quantities the grains of the Crimea, Bulgaria, and Thrace, the wax of Greece, the wines of Greece and Candia, the mastic of Chios, the alum of Phocis, the gallnuts. wool, and goat hair of Asia Minor, the soaps of Cyprus and Rhodes, the linens of Alexandria and Greece, the hides of Russia, the fine buckram cloths of Armenia and Cyprus, the silks, dyestuffs, perfumes, spices, and other products from the Far East brought thither by way of Kaffa, Tana, Trebizond, together with numerous less characteristic products of the various sections of the East. On the other hand, the West sent thither, chiefly in Genoese vessels, various articles in considerable quantities: Flanders and Tuscany, their draperies; Champagne, her linens; Lucca and Genoa, their fine gold and silver ornaments; Genoa, her fine leathers and woolens; Venice and Ancona, their soaps; Spain, her figs; France, her papers; Germany, her linens, leather, and steel; Naples, her nuts; other Italian and French cities, their wines and oils. It thus appears that the West was beginning to offset her imports with exports. In fact the industry and commerce of the West was developing very rapidly, while that of the eastern Mediterranean countries was beginning to wane on account of the disturbed conditions prevailing there and the progress of the Turks in western Asia. Next to Constantinople the most important eastern cities with which the Genoese traded were Kaffa, Trebizond, Tana, Chios, and Rhodes, which, instead of declining, prospered in various ways by the advance of the Turks. Genoese merchants also had a flourishing trade along the northern coasts of Africa, with various islands in the western Mediterranean, with Spain, France, Flanders, and Germany. Thus for a little more than a century Genoa had a monopoly of the Constantinople and Black Sea trade, was supreme in the Mediterranean, and had an important overland trade

with interior and northern Europe ; but for various reasons she declined, and in 1381 she was obliged to make a peace which again practically recognized the supremacy of Venice in both the Mediterranean and Black seas. Neither was this the end of her misfortunes, for in 1396 she was obliged to attach herself to France, and after that was the football of rival European powers.

58. The recovery of Venice. While Venice was obliged for a time to submit to the supremacy of Genoa in the Black Sea and in most of the Mediterranean, she was more fortunate in another direction. She opened the old route from India to Alexandria via the Red Sea, which was much more secure and accessible than the other routes after the advance of the Turks. Venice was also better situated in Italy than her rival Genoa, being the most natural outlet for the varied and rich products of the Po valley. Behind her, and in natural contact with her, lay Treviso, Piacenza, Padua, Verona, Bergamo, Brescia, Cremona, Novara, Tortona, Lodi, Milan, Como, and Alessandria, all of which were thriving manufacturing and agricultural centers. Between these towns and Genoa, on the other hand, lay the Apennines, and consequently their products went to Venice. Furthermore, the land routes from Venice to the most rapidly developing portions of northern and central Europe were more direct than those from Genoa. Venice thus seemed predestined to overtake and outstrip her great rival. It is not surprising, therefore, that she recovered her supremacy in 1381, and for some time thereafter reigned again as the queen of Italian commerce.

59. Venetian manufactures. Although essentially a commercial city Venice also manufactured various articles in large quantities. In the fourteenth century the finest lins in Italy were made in Venice, as were also considerable

quantities of silks and some cotton cloths. The Venetian dyeing processes were still unequaled in Europe. The science of chemistry was further advanced there than anywhere else in the world, and the Venetians had almost a monopoly in the manufacture of dyes. Their working and gilding of leather was recognized as superior to that of any other country; their laces were sought far and wide; their glassware was universally noted for its delicacy and beauty. They manufactured on a large scale brass and iron hardware, including firearms, and their sugar refineries were numerous. They still manufactured salt, and cured fish in large quantities.

60. Extent of Venetian commerce. The Venetian merchants traded, directly or indirectly, from China and the East India islands in the one direction to the north of Europe in the other, and with nearly all intervening countries. At the close of the fifteenth century their maritime commerce required three thousand merchant vessels, which were protected by at least three hundred war vessels. They employed about \$25,000,000 as mercantile capital, not allowing for the very great difference in the purchasing power of money as compared with the present. A modern writer estimates that there were at least one thousand Venetian merchant princes whose annual income ranged from \$10,000 to \$18,000 at a time when \$8000 would buy a fine palace.

61. Venetian commerce and industry were thoroughly organized by the most minute governmental regulations. All the shipping of the city was conducted by a system of merchant fleets, each attended by a convoy of war vessels. The government specified the exact routes, the duration of the voyage, the ports to be touched at, the times for arrival and departure, the number of sailors and the commanders for each vessel, the mode of armament, the cargoes to be bought



A VENETIAN VESSEL

and sold, and, when the fleets arrived at their respective destinations, a governmental commission fixed the prices of all merchandise bought and sold and superintended the whole process of exchange. The three most important fleets and routes were: (1) the Flanders fleet, which coasted along Sicily, northern Africa, Spain, Portugal, western France, England, and Flanders, touching at prescribed ports along the route; (2) the Egyptian fleet, which sailed in a similar manner to Alexandria and Cairo, there meeting the numerous caravans coming from Aden and the Far East and the vessels coming down the Nile; (3) the Black Sea fleet, which visited Kaffa and Tana and sailed thence along the eastern coast of the Black Sea to Trebizond and thence home, touching at numerous ports on the return voyage. The Venetian government also engaged directly in mercantile enterprises, and some articles, like salt, were made the subject of government monopoly. The policy of the government regarding home manufactures was rigidly protective. The importation for sale in Venetian territories of such articles as were grown or manufactured at home was subject to duties which were practically prohibitive. All such goods, however, as were not grown or manufactured at home were allowed to enter subject to much lower duties, as were also all goods for reshipment. This complicated organization of industry and commerce at first glance seems extremely vexatious, but we must remember that it originated in the numerous dangers to commerce from wars, piracy, and other sources. This system furthermore gave Venetian merchants and manufacturers the advantage of expert advice and direction, for the government invariably chose the safest and shrewdest experts to manage this industrial and commercial system.¹

¹ The industry and commerce of Florence, Genoa, and other great Italian cities were organized in a manner similar to that of Venice

62. The Venetian consular system was a very important part of this industrial and commercial organization. In each foreign city of importance was stationed a trained and skillful consul, whose business it was to make regular and exhaustive reports concerning the agriculture, manufactures, and commercial opportunities of that city. These reports covered not only industrial and commercial topics, but everything of interest in the social, political, and religious life of the various countries where consuls were stationed, and constitute a very important source of information for historians. The Venetian consuls were also a very important factor in developing friendly international relations and regular codes of maritime law ¹

63. Florence, before she acquired the port of Livorno in 1421, did not take a really commanding position in maritime commerce, but from that time until the close of the century she became the greatest commercial city on that side of the Apennines, and a great rival of Venice. Florence obtained control of many trading posts in the Levant which had formerly belonged to Genoa and Pisa. She was on much better terms with the Turks than Venice, and even entered into an alliance with them against that city. Under the brilliant leadership of the Medici and other shrewd merchant princes, Florence gained control of strategic trading posts in all parts of the world and secured a practical monopoly in the trade through Armenia and Rhodes, but her commerce was never as extensive as that of Venice.

64. The manufactures of Florence, especially the silk and woollen industries, for several centuries before she attained a commanding commercial position, had been one of the chief foundations of her wealth. She was not content simply to weave what raw materials she could gather, but also

¹ Cf Part II, chap ix.

bought woven fabrics from northern Italy, southern France, Flanders, and England, and worked them over by new processes and dyeing into better imitations of oriental goods. She also manufactured jewelry, golden brocades, artificial flowers, straw hats, soaps, essences, perfumes, lacquered ware, mosaics, alabaster ornaments, glassware, carriages, and musical, mathematical, and philosophical instruments.

65. It was from banking, however, that Florence derived most wealth. For some time her bankers controlled the financial markets of the world. Most of the great loans made by sovereigns during this period, for carrying on wars or for other purposes, or by private undertakers of great industrial and commercial enterprises, were made through the agency of Florentine bankers. Venice preceded Florence in establishing a state banking system, having had one at least as early as 1157. In Siena also there had been powerful banking houses before there were any important ones in Florence. Genoa established the Bank of St. George in 1407. Florence, however, gradually outstripped all her competitors in this field. Even Venetian merchants were frequently glad to appeal to her banks for loans. In the fifteenth century Florence had eighty great banking houses, many of which had branches in every part of the world. These banks practiced all the various banking operations,—deposits, loans, discount, and exchange. They developed a very extensive system of credit through certificates of deposit and bills of exchange, keeping on deposit an abundance of good specie as a basis for security and international confidence. This extensive system of credit was doubly important in those days when so many risks attended the transportation of the precious metals.

66. Florence the birthplace of the Renaissance. In Florence, more than in any other Italian city during the

Middle Age, was displayed the direct influence of commerce upon the development of all the finer elements of material and immaterial civilization. She was the Athens of Italy, and her art, literature, and science was the brightest gleam of intellectual light that was seen in Europe during the Middle Age. It was from Florence, more than from any other single source, that came the awakening known as the Renaissance.

CHAPTER IX

THE NETHERLANDS

67. Early history. Originally the northern Netherlands was one vast half-submerged and sterile swamp, while that portion of the southern Netherlands lying near the ocean was an almost continuous forest, broken here and there by ponds, swamps, and a few low river valleys which were generally flooded. Although the Romans made some modifications in the condition of the country, it was not until long after the Germanic invasions that it was really transformed. As the Franks, Frisians, and Saxons gradually mixed with the original inhabitants, they infused a new energy and vigor into the people of both the northern and southern Netherlands; then the marshes, forests, and even the sea began to give way to fertile territory, which was strongly guarded by their patiently constructed dikes. In the seventh century, in spite of the bad climate and rude population, numerous monasteries seemed to predict something of the future development of the country. The little hamlet Utrecht (*ultra trajectum*), so named because it was located at the last ford of the Rhine, had been built in Roman times. As early as the reign of Dagobert II (A.D. 678) a customhouse was established there, and late in the same century Clement Willibrod, an English priest, converted the Frisians and made Utrecht his headquarters. From the seventh to the ninth centuries new towns were rising near the sea and on the river banks, — Bruges, Ghent, Antwerp, Tournay, Valenciennes, Deventer, and others. When in the

tenth century the southern Netherlands was made the county of Flanders, the towns began to grow rapidly and thrive on their woolen manufactures. The counts, sagaciously or from necessity, allowed the towns considerable self-government and freedom to carry on their industries without molestation, while the burgesses on their part willingly paid tribute both to the counts and to the Church. During the eleventh century the counts chartered numerous fairs and markets, regulated tolls, confirmed rights of self-government, and in other ways encouraged industry and commerce. The Crusades relieved the country of the troublesome petty barons and increased its prosperity. After the wise administrations of Thierry and Philip of Alsace (1128-1191), Flanders was a well organized and governed country, rich, industrious, and enterprising. The communal rights were well established, agriculture and manufactures prospered, and the leading towns were frequented by merchants from many European countries. Hainault was reunited to Flanders for about a century (1191-1280); this fact and the elevation of Count Baldwin to the imperial throne at Constantinople gave an added fame to the country and extended its commercial connections, especially in the East.

68. Condition of Flanders during the later Middle Age.

From the thirteenth century to the close of the Middle Age, Flanders together with northeastern France and a few towns in the northern Netherlands, was the greatest manufacturing region in Europe. Woolens of all sorts, flannels, serges, linsey-woolseys, muslins, linens, cambrics, lawns, silks, velvets, laces, tapestries, brocades, curtains, draperies, sailcloth, rope, hardware, potteries, fine and coarse earthenware, beer, and many other articles, were manufactured in large quantities in such thriving cities and towns as Bruges, Ghent, Lille, Ypres, Cambrai, Courtrai, Tournay,

Valenciennes, Liège, Douai, Antwerp, Malines (Mechlin), Louvain, St. Omer, Dendermonde, Oudenarde, Ainas, Cassel, Utrecht, Leyden, Harlem, Amsterdam, Rotterdam, Delft, Deventer, and Nimwegen. Of all these manufacturing towns those of Flanders were the wealthiest and most prosperous.

Many of the Flemish towns also established fairs and became great commercial as well as industrial centers. These Flemish fairs, especially those of Bruges, Ghent, Antwerp, Ypres, and Lille, succeeded to the position previously held by the fairs of Champagne and soon surpassed them in the magnitude of their trade. Everything possible was done to attract buyers and sellers. Ample port facilities were created, even in spite of a very hostile ocean, not only in Bruges, but in other cities; several cities which had no ports constructed canals, deepened the rivers leading to the ocean, and provided special canal and river boats for meeting foreign vessels and transporting their merchandise up the rivers to the cities. A commission was even appointed to fix the prices of wines and eatables in the hotels in order to protect visiting merchants against extortion. Money changers were always on hand to facilitate exchanges; international conventions of merchants fixed in detail the rights of creditors and the obligations of debtors; a heavy penalty was imposed for selling any of a long list of goods during the eight days preceding and following each fair, except among the inhabitants of the city where the fair was held; heavy penalties were also imposed when any one was found enticing buyers or sellers away from any fair; the placing on sale of inferior or non-inspected goods was punished by heavy fines and sometimes by confiscation. These regulations not only show the zeal displayed by the enterprising Flemish merchants in developing their commerce, but they also reflect the characteristic monopolistic tyranny of the mediæval guilds and protective system.

69. Bruges, from the thirteenth nearly to the close of the fifteenth century, was the most important commercial city of Flanders, and, most of that time, also the greatest manufacturing city. For some time she was the greatest factory city of the Hanseatic League. The length of the voyage from the Baltic coasts to the Italian cities made it necessary for the Hanseatic merchants to have a stopping place on the way. Bruges was the most convenient place for this purpose and consequently became the great intermediary for the maritime exchanges between the North and South, as well as for those between the East and the West. Not only was she the great northern center for maritime trade, but land routes led thither from France, Italy, Germany, and the Danubian countries. Her fairs were visited by merchants of many nationalities, who exchanged there the characteristic products of England, Scotland, Ireland, Denmark, Norway, Sweden, Germany, Russia, Poland, Hungary, France, Spain, Italy, northern Africa, Egypt, the Sudan, the Levant, Armenia, Tartary, central Asia, Arabia, India, China, and the East India islands for the many products of Flemish industry. The merchants of Bruges, as well as those of some other Flemish cities, were not content with simply exchanging in their own markets the products of their native industries for those brought thither by foreign merchants, but they also became venturesome navigators, and frequented all the leading fairs and markets of the world.

70. The Hundred Years' War was a critical period in the industry and commerce of the Flemish cities. Their dependence upon England for wool induced them, under the lead of James van Artevelde, to make a treaty of alliance with Edward III against France. In the first stages of the war that followed, the army of the faithful Flemish allies, which contained troops from all the most important

cities in the Netherlands, rendered considerable assistance to the English. Later in the struggle, however, when Philip van Art velde, no less famous than his father James, was leading a revolt against the count of Flanders, who was backed by a powerful French army, the English nobility, prejudiced by their class interests against their burgher allies, failed to support him, and consequently he was defeated at the battle of Roosebek (1382). The ultimate result of this battle was that Flanders passed under the control of the dukes of Burgundy, and the change of rule was far from injurious to her commercial interests. This house exercised a preponderant influence over French affairs at that time and during its rule in Flanders. Flemish workmen took possession of France, and Flemish merchants extended their relations with that country. At the same time the trade between the Orient and the Occident continued to be centered at Bruges. It was under the rule of Charles the Bold, therefore, that the Flemish cities reached the climax of their industrial and commercial prosperity. When he died in 1477 they passed under the control of Austria by the marriage of Mary, the daughter and heiress of Charles, to Maximilian. Subsequently they passed to Charles I of Spain, who became the Emperor Charles V.

71. The decline of Bruges. It was not long after the death of Charles the Bold that Bruges saw her glory vanish. In 1482 the Emperor Maximilian blocked up her harbor at Sluys in revenge for a rebellion in which she and Ghent had taken part. This act, coupled with the jealousies of neighboring cities, the further hostility of the emperor, the decline of the Hanseatic League, whose interests were largely centered in Bruges, and the decreased importance of maritime and land trade with Italy and the eastern Mediterranean cities on account of the great

geographical discoveries made about that time, caused most of the commerce of Bruges to slip quickly away to the neighboring city of Antwerp.

72. The northern Netherlands during the later Middle Age were by no means so important, industrially and commercially, as their southern neighbors. For one thing they did not have such good agricultural resources, and for this and other reasons manufactures took root and developed extensively at a much earlier date in Flanders than in Holland. At the same time nature seemed to intend the Dutch to become great sailors and merchants rather than manufacturers. Their ancestors, the Batavians, had almost lived in the water and had been schooled in the northern Roman navy. Then, too, the mouths of all the rivers of the Netherlands except the Scheldt are in the northern portion of the country, thus plainly pointing the Dutch to a maritime career. They were nearer the great fisheries of this region, and these also tempted them seaward. After long and patient training, therefore, the Dutch were destined to eclipse their southern neighbors as sailors, merchants, and carriers.

Although the fishing industry was at first the chief basis of their wealth, the Dutch, as we have seen, developed some important manufactures during the Middle Age, especially at Leyden, Rotterdam, Amsterdam, Delft, Deventer, and Harlem; and they very persistently fought back the ocean by building dikes, thus paving the way for quite an important agricultural and horticultural development. The Crusades proved a great blessing to the Dutch, as well as to so many other Europeans. "Thousands of ignorant and half-civilized Christians left their cold and wet homes in Holland and Friesland to have their eyes opened in the sunny Levant and the luxurious East. From their huts and rude life they came in contact with great cities,

marble houses, elegant pavements, superb dresses, and refined manners." The use of underclothing, napkins, table and bed linen, carpets, wall paper, bath tubs, soap, perfumes, spices, bricks, tiles, terra-cotta work, and a score of other articles which are now considered necessities, were unknown to the Dutch before the Crusades, and they returned from the East to imitate in their own industries many of these articles, and inspired with a desire to continue going there to get what they could not themselves reproduce. From the time of the Crusades, therefore, Holland, like many other western countries, began to develop manufactures much more extensively, and by the close of the Middle Age she had some very important industries, especially the linen, lace, thread, and woolen industries.

The Crusades also gave a new impulse to Dutch agriculture and horticulture. From that time dates their greatness and skill as growers of flowers, fruits, and vegetables. It was in the various portions of the East that they first saw the flowers which became the "Dutchman's darlings," such as the tulip, anemone, hyacinth, narcissus, rose, and geranium, as well as many vegetables and fruits which were to delight the palates of future European sovereigns and courtiers. The Dutch, upon their return from the Crusades, began to erect hothouses and study botany and gardening. They were thus able to reproduce in their home land many varieties of exotic flowers, vegetables, and fruits which they had found in all parts of the known world. By the seventeenth century a famous Dutch botanist catalogued over six thousand varieties of exotic plants that were grown in the hothouses of Leyden. By their skill in gardening and botany the Dutch were able for several centuries to supply the leading courts of Europe with rare flowers, fruits, and vegetables. They not only

made this new industry a source of wealth to themselves, but they gradually extended the growth of many flowers, vegetables, and fruits into other countries. As has been said, "Hundreds of our common flowers, trees, and vegetables were once oriental exotics, which the Dutch chaperoned and brought out into occidental society."

One other thing that the Dutch learned the use of in the East deserves special mention, viz., the windmill. This became the "steam engine" of the later mediæval and early modern Holland and produced there effects that were somewhat analogous to those produced later in England by Watt's famous invention. The windmill revolutionized the industries of the Dutch: with it they pumped water, ground grain, sawed wood, loaded and unloaded boats and wagons, and performed many other tasks. The windmill consequently enabled the Dutch to reclaim their land from the ocean more effectively, to develop their agriculture and horticulture by irrigation, and to improve and extend their manufactures.

After the Crusades the Dutch also became greater sailors and merchants. Having laid the foundations of their wealth in the fisheries, and having developed some important industries, they began to venture into remote waters, and in distant markets they sold their own wares and those of their southern neighbors, securing in return the much-prized articles they had first seen during the Crusades which could not otherwise be procured. Then early in the Modern Period, after the ruin of Antwerp by the Spaniard, Amsterdam profited by the misfortunes of her neighbor and became the commercial and financial center of the world. Thus we see that the schooling of the Dutch was severe and their arrival at maturity slow, but their success was at last transplendent.

CHAPTER X

GERMANY AND THE HANSEATIC LEAGUE

73. Early Norse explorations. Although the Scandinavian countries, Norway, Sweden, and Denmark, developed more slowly than those farther south and west, we must not forget that they also made some industrial and commercial progress during the Middle Age. As early as the eighth and ninth centuries the Norsemen wandered to almost every part of the world, sometimes as pirates, sometimes as explorers and colonizers. They left their relics in such widely separated countries as Russia, Greece, Italy, France, England, Iceland, Greenland, and America. While we usually think of these sea rovers from the Baltic as pirates, they really were more than pirates. They made commerce and industry very unsafe for many countries; yet in spite of their piracy they did some genuinely good work as colonizers, and developed industry and commerce in some of the countries where they settled, as, for example, in England, Russia, and Iceland. But on the whole the mother countries, Norway, Sweden, and Denmark, profited very little by these numerous and distant enterprises.

74. The expansion of Denmark. In time, however, the Scandinavians ceased scattering themselves, stayed at home, and developed their native resources. One of these states, Denmark, gradually took the lead. At one moment it looked as if Cnut, the Danish conqueror of England, would succeed in executing his plan for a great northern empire, but his dream was never realized; Denmark remained for

several centuries the leading northern power. Finally, in 1397, her leadership was clearly recognized in the Union of Kalmar, which united Denmark, Norway, and Sweden under Margaret of Denmark. Gradually Danish influence was extended throughout the Baltic countries, until it could truly be said that the Baltic was a Danish lake. During the latter portion of the Middle Age these Scandinavian peoples, under the lead of the Danes, developed quite an extensive commerce among all the Baltic countries and even beyond, in Russia, England, France, Flanders, Greece, Egypt, and the Levant. Some of the Scandinavian towns, like Wisby, Biorko, Bergen, and Copenhagen, became very prosperous and rich, and Danzig, Elsinore, Aalborg, Tonsberg, Stralsund, Vineta (Wollin), and Truso (Elbing) were also important trading centers, exporting chiefly herring, timber, tar, pitch, iron, copper, hides, tallow, and wheat. But while there was quite an extensive regular trade in these Scandinavian towns, numerous younger sons of the royal and noble families still continued to indulge in what they considered the legitimate practice of piracy.

75. German expansion. The Danes in their expansion had to compete with the very active and aggressive Germans. Nowhere did feudalism prove a greater curse than in Germany, but in colonization the mediæval Germans were very successful. Now if one looks carefully at the map of mediæval Europe, he will see that there were three possible vents for the surplus native energy of the Germans during those centuries when national boundary lines had not yet been clearly drawn: (1) in the direction of Italy; (2) along the French border; and (3) towards the east and northeast. The German emperor-kings, while engaged in their "holy" task of "protecting" the Church, found Italy their most attractive field for action; but there soon arose an exceedingly unholy struggle between these emperors and the

Church, which sowed the seeds of bitter discord not only in Italy but also in Germany. In the West the kings of France soon gained a decided advantage and gradually picked up all the most desirable territorial scraps lying along the frontier. Thus in two directions the surplus energy of the Germans, as embodied in their official leaders, failed completely; but in the third direction German private enterprise was continually reaching out with boundless energy and remarkable success. In all those regions lying towards Russia and along the Baltic, the Middle Age was one long story of plodding industrial conquest and Christianization of the pagan natives by German colonists.

In these regions, however, Germans and Scandinavians met as competitors and for centuries contended for the mastery of the Baltic. German colonists, quickly and with comparatively little opposition, took possession of the region lying south of Denmark and between the Elbe and the Oder, including Mecklenburg. During the Middle Age, however, the Germans were unable to go farther in this direction and wrest anything from Denmark,¹ and in their efforts to extend their colonization farther east along the Baltic, into Pomerania, Prussia, Livonia, Esthonia, and Finland, they had to compete with the Scandinavians every inch of the way. Nevertheless Germany sent hosts of farmer, artisan, and merchant colonists into these countries in the face of all competition. Ultimately Sweden secured Finland and Karelia, and Denmark occupied Esthonia; but the remaining and largest share fell mostly to the German colonists. Farther south and east, in Poland, Bohemia, and Hungary, German enterprise was almost as successful against Slavic competition. In all these countries Germans built new cities or transformed old villages into cities, developed agriculture, manufactures, and commerce, and

¹ Schleswig was not conquered until the nineteenth century.

carried on a continual crusade against the paganism existing there. Thus the enterprising German colonists of the Middle Age found their America on their own borders, and they eagerly took possession of the lion's share of this new world.

76. City confederations in mediæval Germany. The work of the Hanseatic and other German city leagues was closely associated with this eager, restless pioneer competition along the Baltic and in the zone lying between Russia and Germany; they were logical outgrowths of German disorder and active private enterprise. When these leagues originated, all the German highways were beset with numerous bands of freebooting feudal knights, who could not be held in check by the shadowy emperors pursuing their will-o'-the-wisp enterprises in Italy. Added to this constant danger on land was the wholesale practice of piracy on the sea by the Scandinavians, and frequently also by the German nobles. The impotence of the central government left the field clear for all the grossest appetites and disorders. The emperors hurled their puny edicts against lawlessness in vain; "fist law" alone was of any avail. Under such circumstances, if the active private enterprises of the German industrial and commercial classes were to be fruitful, self-protection was necessary. Accordingly we find numerous instances of towns associating together for mutual self-defense against lawless robbers and pirates. Three such leagues became more important and extensive than the rest, viz., the Rhenish, the Suabian, and the Hanseatic.

77. The Rhenish League was formed in 1247 upon the initiative of the city of Mainz. By 1255 over ninety cities had entered this league, the most important being Köln, Coblenz, Basel, Worms, Speyer, Strasburg, Zurich, Frankfurt, Aachen, and Münster. The league finally became

powerful enough to abolish numerous tolls, to destroy many feudal castles, and to support a fleet of six hundred vessels, mostly on the Rhine. The government of the league was vested in a diet, which met four times each year, alternately at Koln, Mainz, Worms, and Speyer. By the end of the fourteenth century, however, the Rhenish League had become divided into two rival leagues, embracing respectively the cities along the upper Rhine which followed the leadership of Worms and those along the lower Rhine under the leadership of Mainz.

78. The Suabian League was formed a little later than the Rhenish League, probably about the beginning of the fourteenth century. It included all the leading towns and cities of the Danubian countries, as well as those of Bavaria, Wurtemberg, and Baden, the most important being Augsburg, Ulm, Nurnberg, Ratisbon, Constance, Esslingen, Reutlingen, and Kempfen. These cities were in direct and constant relation with Italy by several routes, but especially by the regular route to Venice, whence they received all the products of the Mediterranean countries and the Orient in exchange for northern products. Nurnberg and Augsburg profited most by this league. Nurnberg, in particular, with a splendid location, attained a universal reputation, both on account of her extensive commerce and manufactures, and also because of her high intellectual development and her luxury. Her fine gold and silver wares, artistic objects in bronze, copper, stone, and wood were eagerly sought after everywhere, and she became the capital of German art and one of the greatest scientific centers that Germany produced during the later Middle Age.

79. Origin of the Hanseatic League. While the above two leagues were becoming powerful in western and southern Germany, the Hanseatic League arose in the north and eventually eclipsed the others. This league probably began

with the alliance of Hamburg and Lübeck about the middle of the twelfth century, and gradually came to include the coast towns of the Baltic and the inland towns of northern Germany. By the beginning of the fifteenth century it embraced nearly one hundred towns in Germany and elsewhere.

80. The Hanseatic cities were grouped into four districts, or quarters. The Wendish Quarter embraced the towns in Pomerania and Mecklenburg, the Westphalian Quarter, those in Westphalia, the Netherlands, and along the Rhine; the Saxon Quarter, those in Saxony between the rivers Weser and Oder; the Prussian Quarter, those in Livonia, Esthonia, Lithuania, and Poland. There were also some allied cities under the protection of the league, which neither sent deputies to the diet nor contributed to its general fund. The primitive center of the league was Wisby, but the preponderance soon passed to Lübeck, which became the capital for the entire league. There was located the treasury, there the archives were kept, and there were debated the common interests of the confederation in yearly diets. Lübeck, moreover, was especially charged with the execution of the diet's decrees, which were compulsory upon all the members of the league.

81. In order to secure its commerce the Hanseatic League became a real military power. Although Lübeck was especially charged with the enforcement of the diet's decrees, yet in every city the more eminent burgesses and the resident nobles were trained for cavalry service, and the citizens of lower rank for infantry service. In addition to these citizen soldiers, mercenary troops were employed by the more important cities. Thus the league was not only able to suppress piracy and robbery, but frequently engaged in war with powerful nations like Denmark, Norway, and Sweden. So great was its military power that it

generally dictated its own terms of peace to the monarchs of those countries, and exacted from them very important trading privileges and exemptions. Frequently also the league secured valuable concessions and monopolies from various sovereigns by large loans of money. Thus the Hansa towns not only obtained commercial security, but also a practical monopoly of all the most important trade of northern Europe. The Baltic for several centuries belonged to the Hansa quite as clearly as the Adriatic belonged to Venice.

82. The merchants of the Hanseatic League, like those of other countries, shrewdly took advantage of the Crusades. Their ships took part in the expeditions to the Holy Land, and they thus learned valuable commercial lessons and established important connections in the East. Furthermore, in alliance with various knightly religious orders like the Teutonic knights, they organized crusades against the heathen living along the eastern Baltic, where they found rich natural resources altogether undeveloped, which they soon were able to control. In a similar manner they gained control of the valuable native products of Poland, Hungary, Bohemia, and parts of Russia, in addition to their monopoly of the fisheries, mines, agriculture, and manufactures of Germany.

83. Hanseatic factories. In developing commerce outside of Germany the league generally established commercial stations, or factories, as a basis for action, four of which became more important than all the rest, viz., those at Bruges, London, Novgorod, and Bergen. In all the countries where such stations were established, the league obtained for its merchants valuable commercial privileges and exemptions, often, however, not without great difficulty. By degrees the Hansa merchants obtained a monopoly of all the trade centering in some of the cities

where they had factories. This was especially true at Novgorod and London, where for several centuries the native merchants were almost completely excluded from the foreign trade of those cities. The factory at Novgorod became the greatest center for Hanseatic trade between western Europe and the countries lying east of Poland; the one at London for the trade between England and all the north of Europe; that at Bergen for the trade with Iceland, Greenland, the Faroes, and the Scottish islands; that at Bruges was the great connecting link between the trade of northern and southern Europe.

84. All these factories of the Hansa were subject to rigid regulations by the diet at Lübeck. Each factory formed a little city within the city where it was located, and possessed a separate government of its own subject to the diet. All the merchants, apprentices, inspectors, and other employees resided within the jurisdiction of the factory. Celibacy was strictly enforced, partly from a semi-religious motive, but more in order to secure attentiveness to business. Employees could not visit, under penalty of death, any part of the city except their own quarter, and a rigid police system was instituted to enforce this regulation. An apprentice had to remain in the service of the factory for at least ten years, and was promoted through various stages of commercial science. At the end of his apprenticeship a Hanseatic clerk generally left the factory where he resided, and returned to some German city to practice commercial pursuits. The Hanseatic factories thus served as an excellent commercial school.

85. The general influence of the Hanseatic League.—In spite of its monopolistic tendencies and excessive application of the protective system, so characteristic of the Middle Age, the Hansa rendered a very valuable service to the industrial and commercial development of the later

Middle Age, and indeed to European civilization as a whole. It is difficult to estimate the vast amount of pioneer work done directly or indirectly through its agency in Russia, Poland, Bohemia, Hungary, Prussia, Pomerania, Finland, Mecklenburg, Saxony, Norway, Sweden, and even in more remote countries. In all these countries, through the active and intelligent enterprise of Hanseatic merchants and colonists, forests, swamps, and barren wastes were for several centuries continually giving way to splendid fields of wheat, flax, and hemp, to large and thriving stock farms, or to well worked and rich copper, iron, gold, and silver mines. Towns and villages were continually springing up in these countries, where before there had been only the rudest dwellings of half-savage peoples. Very many of these towns and villages became large and thriving cities, the centers of an extensive trade, and the seats of numerous industries, like fisheries, shipbuilding, and the manufacture of leather, leather goods, fur goods, woolens, linens, metal wares, and many other articles. Many of the Hanseatic cities grew very rich, and consequently were filled with luxury, culture, and refinement. Fine residences, churches, and public buildings arose under the touch of this wealth. The standard of living was elevated throughout all the northern and central portions of Europe. But this was not all. The wealth and power of the Hansa, and the higher standard of living due partly to its efforts, were telling blows not only against material barbarism, but also against feudalism. The Hansa did much to emancipate the middle classes, not only in Germany and the Baltic countries, but also in England and France. Its representative and elective system also served as a valuable lesson in self-government to many countries and districts, and its plan of confederation was for several centuries a precedent in political organization. By its

vigorous efforts piracy in the North Sea and the Baltic was repressed and navigation greatly improved in various ways. It established throughout wide regions the recognition of many valuable principles of maritime and international law, especially the use of the laws of Oléron and Wisby. The league also greatly extended and improved the use of credit in countries where it had not before existed. For all these reasons, therefore, it would be difficult to overestimate the services rendered to civilization by this commercial league.

86. Decline of the Hansa. After several centuries of usefulness, however, the league began to decline, and finally disappeared. This was due to several causes. In the first place it lacked an executive power sufficiently strong to always compel members to submit to resolutions of the diet. Frequently it happened that the interests of a few of the cities were in real or seeming antagonism to those of the rest, and these divergent interests caused dissensions that weakened the league. Then, too, it might be said that the league outlived the conditions which had originally made it so necessary and successful. As long as all northern Europe was full of barbarism and anarchy, the cities in that region were very glad to join and support the league as the only means of protecting trade, but when the various regular governments grew strong and liberal enough to protect their own trade, there was no longer the same need for the league. Furthermore, the very countries that had allowed the Hansa merchants a monopoly of trade finally began to engage in trade themselves, and became strong competitors. Consequently, city after city withdrew from the league, until Hamburg, Lubeck, and Bremen were the only ones that took any interest in it, the discovery of the cape route to India, the disastrous Thirty Years' War, and other causes completed its ruin.

CHAPTER XI

MEDIÆVAL FRENCH COMMERCE

87. Until the thirteenth century the condition of southern France was much superior to that of northern France. The Roman civilization was better preserved in the former section, and it felt more strongly the civilizing influence of Arabian, Spanish, Italian, Jewish, Syrian, and other foreign traders; it was rich and had a very prosperous agriculture, commerce, and system of manufactures; a greater degree of religious toleration prevailed there than elsewhere in Christendom, and merchants of all religions and nationalities enjoyed liberal commercial privileges. The twelfth century was for this section a period of exceptional prosperity; its industries were successfully developed and its commerce was scarcely second to that of the Italian cities. Montpellier was one of the chief centers for trade between the East and the West; her markets were frequented by Arabian, Jewish, Egyptian, Greek, Syrian, Italian, Spanish, English, Flemish, and German merchants; her own merchants and manufacturers had agents at all the fairs of Italy, Champagne, and Flanders, in Tripoli, Rhodes, Constantinople, Cyprus, and many other places; she had commercial treaties with most of the Mediterranean states and cities; her commercial and industrial policy was very liberal. Marseilles and Narbonne were almost on a par with Montpellier, while along the Rhone were other thriving commercial towns such as Beaucaire, Avignon, and Tarascon. Southern France in

the twelfth century, therefore, seemed destined for almost unlimited progress. Early in the thirteenth century, however, the Albigensian crusade seriously crippled the commerce and industry of this section; other calamities during the thirteenth and fourteenth centuries injured still further many of its towns and cities.

88. From the beginning of the thirteenth century the kingdom of France in the north increased in commercial and industrial importance much more rapidly than the other territories in the French peninsula. Paris, the capital, had already become an important city with quite an extensive trade along the Seine and the Marne in grain, hay, wood, wine, wool, hemp, and flax, while her position at the juncture of the routes from Aquitaine and the Mediterranean opened to her still greater commercial opportunities. Under Philip Augustus (1180-1223) the royal domain was doubled; St. Louis (Louis IX, 1226-1270) and his son Philip III (1270-1285) extended it still farther by the annexation of Toulouse and some adjacent territories after the terrible crusade against the Albigenses. The commercial importance of these territorial extensions was greatly increased by the shrewd foundation of the seaport of Aigues-Mortes, the first one possessed by the kingdom. Much of the commerce of the other cities in the south was diverted to this new port, which thus became the great entrepôt for goods passing from the Mediterranean countries to central and northern France and to Flanders. St. Louis also stimulated the commerce of his kingdom by establishing law and order more securely, by issuing a good money, which was legal tender throughout the territories of the crown, by limiting the use of feudal money to the fief where it was coined, by regulating feudal tolls and duties, by building the famous bridge St. Esprit across the Rhone, by encouraging various industries at Paris, Arras,

Amiens, Limoges, Metz, and other towns. On the other hand St. Louis undoubtedly fettered industry and commerce somewhat by an excessive application of the mediæval protective system.

89. Unfortunately, there was an industrial and commercial reaction under the last four Capetian kings. Philip the Fair (1285–1314) engaged in wars that were disastrous to French industry and commerce, he persecuted the Jews and Italians, who were then the chief agents of French commerce; he frequently debased the currency; he decreed maximum prices on a good many staple articles; he charged heavily for trading licenses; he prohibited the exportation of numerous articles and imposed excessive duties on imports, and in other ways he tightened the thumbscrews of the mediæval protective system. One of the most serious blows which he inflicted on industry and commerce was the destruction of the Order of Templars. This order held in its own right, or in trust for safe-keeping, a very large portion of the capital of Europe, was universally trusted and respected in business circles, and at that time did the most extensive banking business in Europe. The confiscation of the property of the order in France naturally caused a serious panic; the effects were similar to those following the destruction of the monasteries by Henry VIII of England. The policy thus inaugurated by Philip the Fair was continued by his three successors, Louis X (1314–1316), Philip V (1316–1322), and Charles IV (1322–1328). It is not surprising, therefore, that French industry and commerce steadily declined during these reigns.

90. Under Philip of Valois (1328–1350) France enjoyed another brief period of industrial and commercial prosperity. The French court became the most brilliant and luxurious in western Europe; the middle classes began to

imitate the court and raise their standard of living. The unwonted activity of home manufacturers and foreign merchants was scarcely sufficient to fill the demands for silks, vestments, furs, embroideries, precious stones, and many other luxuries. There was also a perceptible improvement in French agriculture.

91. The Hundred Years' War began just when French industry and commerce were branching out into new fields and enterprises. This war was undertaken for the double purpose of driving the English from the French peninsula and of controlling the Flemish trade. Although the French ultimately succeeded in accomplishing the first and more patriotic purpose, it was not without a serious check to the development of their industry and trade, especially during the earlier stages of the war. Crops were destroyed; manufactures were injured; ruinous financial measures were resorted to by the government, such as the "gabel" tax, frequent depreciations of the currency, numerous imposts, and other commercial restrictions; the revolt of the Jacquerie was aroused; French exploration along the western coast of Africa was checked.

92. Occasionally, however, during the intervals when the war was not vigorously prosecuted, industry and trade revived. Charles V (1364-1380) favored commerce in various ways. During the reign of Charles VI (1380-1422), in spite of the civil and foreign wars, the foreign and domestic commerce of France increased quite rapidly, her merchants began to take possession of the sea, and her sailors were again exploring western Africa. This was the time of the great French merchant prince, Jacques Cœur, who carried on an extensive land and maritime trade with all Christian countries, and with many Mohammedan countries under special privileges granted by the sultan.

93. The close of the Hundred Years' War favored a further development of French commerce and industry. Charles VII (1422-1461) reformed the laws regulating the guilds, abolished or reduced tolls and, in certain provinces, the local customs duties, created numerous markets and fairs, and signed commercial treaties with Aragon and Denmark. He also tried to revive the fairs of Champagne, but they had already declined too much, and the natural forces working against them were too strong for them to recover their former importance. Louis XI (1461-1483) did even more to stimulate trade and industry. By the treaty of Pecquigny (1475) he extended to England the same commercial privileges that were already accorded to Flanders, Brabant, Holland, Lombardy, Castile, and Portugal. He also made a commercial treaty with the Hanseatic League. Like his predecessor, he abolished many feudal tolls and restrictions. He created altogether ten markets and sixty-six fairs, and greatly strengthened the fairs of Lyons. Lyons, in fact, under his stimulation, became a city of international commercial importance. He fostered manufactures, especially the silk manufactures at Tours, and imported workmen from Italy. He improved roads and rivers, encouraged navigation, and did his utmost to establish a real unity of weights and measures. A grand council of merchants was formed for advising him on industrial and commercial questions, and prominent merchants were placed in responsible administrative positions. Under such varied stimulations, French industry and commerce developed quite rapidly during the reign of Louis IX.

CHAPTER XII

MEDIEVAL ENGLISH COMMERCE

94. Roman Britain. Long before the Roman conquest, the Phœnicians, Carthaginians, Greeks, and probably the Etruscans had traded with Britain. The wealth to be derived from trade with the island was one of the chief motives leading to its conquest by the Romans. When they took possession, the few Celtic roads that existed were improved, and new ones were built on a grand scale; along these roads, towns like London, York, Bath, Colchester, Chester, Gloucester, Lincoln, and Richborough were built; in these towns were barracks, temples, baths, public buildings, residences, gardens, and rows of shops; marshes were drained, forests cleared, and agriculture improved. These improvements naturally tended to develop commerce; the southern and southeastern harbors conducted quite a busy trade with Gallic merchants, who served as the most important commercial intermediaries between Britain and the rest of the Roman world. Tin, lead, iron, wheat, cattle, sheep, wool, skins, furs, hunting dogs, slaves, and wild animals for the arena were exported from the island in exchange for fine cloths, potteries, and wines for the resident Romans, and weapons, bracelets, and all sorts of ivory, glass, and gaudy-colored trinkets and ornaments for the natives. Bricks, tiles, coarse potteries, and coarse cloths were made in the island itself for domestic use. England during the Roman occupation, therefore, was far more prosperous than for several centuries thereafter.

95. The Saxon conquest produced great changes in the island, but was not so destructive of industry and commerce as frequently represented. It is true that there was a serious reaction in art, religion, and political institutions. The Roman roads were not kept repaired, and pirates infested the coasts. Moreover, each community tended to become economically self-sufficient, weaving its own rough woollens and linens, cutting its own wood and timber, having its own blacksmith, carpenter, butcher, baker, bricklayer, saddler, helmet maker, plumber, etc. These and other conditions no doubt tended to check the development of foreign and domestic trade, but it is easy to exaggerate the destructive effects of the conquest. Relying on the exaggerated and prejudiced statements of the early ecclesiastical historians like Bede and Gildas, it has been maintained by some modern writers that the Romans and Britons, together with their industries and institutions, were almost completely wiped out by the Saxon invaders. It is coming to be recognized, however, that most of the Britons probably continued to work their farms and carry on many of the rude industries which they had already developed, while the Saxons for some time resided among them as a military aristocracy, ultimately engaging in farming and other industries themselves. The monasteries also remained agricultural centers and developed certain manufactures. Furthermore, the various communities did not become completely self-sufficient. A certain amount of foreign and domestic trade, chiefly in luxuries which were not bulky but valuable, was conducted in the face of all difficulties and dangers. When the Danes came to the island, they greatly improved its agriculture and manufactures, and gave a new impulse to commerce. Although many of these invaders were pirates, some of them were enterprising traders with distant countries. An increasing quantity of

precious metals, vestments and embroideries for the monasteries, weapons, tools, furs, skins, and some other articles were now imported in exchange for wool, cattle, horses, tin, lead, and large numbers of slaves. In the ninth century English traders went as far as Marseilles, and frequented the fairs of Rouen and St. Denis. In 796 the king of Mercia made a treaty with Karl the Great, which granted protection to English traders in the Frankish empire. Alfred the Great encouraged commerce by founding a navy, by cultivating friendly relations with distant countries, and by publishing the accounts of the voyages of Othere to the north seas and Russia, and of Wulfstan to the eastern coasts of the Baltic. Athelstan (925-940) rewarded traders by conferring nobility upon those who "fared thrice over the sea with a ship and a cargo of his own." In the reign of Ethelred (976-1016) we read of trading vessels coming from Flanders, Normandy, and Germany.

96. For some time after the Norman Conquest (1066) English agriculture and manufactures developed quite slowly. This was due chiefly to the heavy taxation, the feud between Norman and Saxon, the anarchy under Stephen and Matilda, the numerous checks upon individual enterprise, and the frequent regulation of prices by the government. The Domesday census revealed a population of about one million eight hundred thousand, about ninety per cent of whom were agricultural. Only about eighty of the manors included enough other people than farmers to be called towns, and only ten per cent of the total population lived in these towns. Neither the total population nor the percentage of town population increased much for several centuries. For a long time each manor remained practically self-sufficient, growing not only its own food stuffs, but manufacturing most of the other articles required. There was

some tin mining in Cornwall and the Scilly Islands and some lead mining in Derbyshire, but the methods employed were so primitive that these industries were relatively unimportant. Fishing and lumbering were also carried on by many persons, but chiefly in connection with farming and for the supply of local demands.

97. On the other hand, the Norman Conquest established a closer connection with the continent and gave an impulse to trade in that direction, particularly with Flanders. The standard of living in the few towns was gradually raised so that they began to require more luxuries which they could not produce themselves, while the more well to do among the rural population also increased their demands upon the foreign merchant. Gradually, also, the English, especially those living in the towns, began to produce more for export. The trading class therefore became more important, but it consisted chiefly of foreigners.

98. After the accession of Henry II (1154), a considerable trade was developed between England and her possessions in France. From Hastings, Dover, Southampton, Sandwich, and other ports in southern England was exported an increasing quantity of tin, lead, wheat, wool, salted fish, meat, cattle, gold and silver ornaments made in the monasteries, to various English ports in the French peninsula. Rouen in Normandy traded with England, Flanders, Paris, southern France, and Spain. Bordeaux, the chief English port in France after the loss of Normandy, exported her wines to England and Flanders, and also carried on a quite active trade with Toulouse along the River Garonne. Tin and copper from England were shipped up that river as far as navigation would permit, and were thence carried overland on the backs of animals to Narbonne, where they were embarked on French or Italian vessels to Alexandria. La Rochelle also sold her wines in England and Flanders;

Nantes sent thither wines, fruits, and salt collected in the marshes of Brittany. Bayonne devoted herself chiefly to the fishing trade. These Atlantic ports of France under English control remained quite important commercially until the fourteenth century.

99. The Crusades gave quite an impulse to English commerce. William Fitzstephen wrote in 1174 that foreign merchants brought to London gold, spices, and frankincense from Arabia; precious stones from Egypt; purple cloths from India; palm oil from Bagdad; and weapons from the Black Sea countries. Some clauses in Magna Charta also indicate the growth of industry and commerce. In that instrument towns were guaranteed the right of regulating their own trade; the amercement of a merchant, even upon conviction of felony, was never to include his wares; foreign merchants were secured in their right of trading throughout the realm; uniformity of weights and measures was to be enforced, the exaction of forced labor, provisions, and chattels, without payment by the royal officers, was forbidden; restrictions were imposed upon the Jews which were calculated to check their exorbitant interest charges. These clauses, like all the others in Magna Charta, were but feebly and fitfully enforced, but they nevertheless show that the merchant class had already become important.

100. For several centuries after Magna Charta, England developed her agriculture far more than her manufactures and commerce, and wool was her staple product. England in fact was already the greatest wool-producing country in Europe, owing partly to her climatic and natural advantages, but more to the fact that her sheep were safer from the ravages of war and robbers than those on the continent. She was also better situated than any other country for shipping wool to Flanders, the greatest center of the woolen

industry. Wool was also produced in large quantities in Spain, but it was inferior to English and Scotch wool and could not be shipped to Flanders so easily as from England. England therefore had a practical monopoly of the wool trade of Europe for several centuries. More and more capital was invested in this industry, and there was a steady tendency to turn agricultural lands into sheep walks on account of the greater profits accruing from this industry. The Black Death in the fourteenth century accelerated this tendency by creating a scarcity of farm laborers and raising wages, thereby rendering it necessary for landowners to turn large tracts of agricultural lands into pastures. The large profits derived from sheep raising also led the more powerful landowners to inclose many common lands and even to evict tenants from their holdings, so as to secure more lands for pasturage. It was this policy of the landlords that was chiefly responsible for Wat Tyler's Rebellion in 1381; but the peasants failed to secure their demands, and the evictions and inclosures continued, with a corresponding increase in the output of wool. So great were the profits and so complete was England's monopoly of the wool trade, that the government was able for some time to derive the largest part of its revenue from an export duty on wool, and really to get this tax out of the foreign manufacturers by making them pay just so much more for their wool. Thus England's wool not only brought enormous profits to her farmers, but paid for many of her wars and other expenses.

101. We must not conclude, however, because England shipped so much raw wool, that she did not manufacture any of it. On the contrary, as we have seen, nearly all the manors of England had for centuries supplied themselves with coarse woolens made at home, while some, especially in Norfolk and Suffolk, were beginning to make

finer grades of woollens and more than enough to supply themselves. During the reign of Edward III (1327-1377) this industry began to receive serious attention from capitalists. This sagacious monarch, profiting by the rivalries of the Flemish towns, invited many of their weavers to settle in the eastern counties of England, and protected them in the development of the woollen industry in that section. Thereafter England manufactured more and more of the finer grades of woollens which she required, exported a correspondingly smaller quantity of raw wool, and soon began to export her cloths. During the latter part of the fourteenth and all of the fifteenth century, manufactured woollens, instead of raw wool, were becoming the chief basis of England's wealth. We find during this period a strong effort on the part of the government to enforce higher and higher export duties on raw wool, and even some efforts to prohibit its exportation altogether. Tin, lead, and iron mining, the fisheries, lumbering, and ship-building were also becoming increasingly important during the later Middle Age. There were some interruptions to this industrial growth; as, for example, during the latter part of the fifteenth century, when some of the old corporate manufacturing towns declined considerably, owing to the heavy taxation under Henry VI and Henry VII and the excessive regulation of industry in these towns. This decline, however, was largely offset by the growth of new manufacturing towns in the north, such as Manchester, Birmingham, Sheffield, Leeds, and Wakefield, late in the fifteenth and early in the sixteenth century. On the whole, there was quite a steady development of manufactures during the later Middle Age, even during the Wars of the Roses, which affected the middle classes very slightly.

102. English commerce during the fifteenth century. Corresponding to the industrial development during and

after the reign of Edward III there was, especially during the fifteenth century, a growing tendency for English merchants to conduct their own foreign commerce, instead of leaving it to foreign traders. Up to that time the foreign trade of England had been monopolized by Venetian, Genoese, Florentine, Flemish, Hanseatic, French, Spanish, Swedish, and Jewish merchants, who had regularly visited the greatest English fairs like Stourbridge, Winchester, and Smithfield, and often also the lesser fairs and markets. English merchants had kept a good deal of the domestic trade in their own hands, but the foreigner had even intruded in that. During the fifteenth century, however, and to a greater extent during the sixteenth, the situation was being reversed in favor of the native trader.

References — Cunningham's *Growth of English Industry and Commerce* (2 vols) is not only admirable for study, but also gives a very complete bibliography. Ashley's *English Economic History* also gives useful references. The average student however, will find the references given in *Traill's Social England* (6 vols) more useful, and this work also deals very satisfactorily with many topics. More advanced students should consult *Gross, Sources and Literature of English History*. Other good references are *Allsopp, Intro to English Indus History*, *Blad-Brown-Towney, English Econ Hist Select Documents*, *Briggs, Economic History of England*, *Cheyney, Indus and Soc Hist of England*, *Ibid.*, *English Towns and Gilds*, *Cornwall-Jones, British Merchant Service*, *Denton, England in the 15th Century*, *Econ Rev*, VII, 302 *English Towns and Roads in the 13th Century*, *Ibid*, VIII, 350, *Notes on English Medieval Shipping*, *Gibbins, Industry in England*, *Green, English Towns*, *Harris, Life in an Old English Town*, *Innes, Industrial England*, *Jusserand, English Wayfaring Life*, *Lipson, Intro to Econ Hist of England*, I, *Mantland, Domesday Book and Beyond*, *Meredith, Outlines of Econ Hist of England*, *Paulk, Pictures of Old England*, *Price, Short Hist of English Commerce*, *Rogers, Economic Interpretation of History*, *Ibid*, *Six Centuries of Work and Wages*, *Ibid*, *History of Agriculture and Prices*, *Salzmann, English Industries of the Middle Ages*, *Schantz, Englische Handelspolitik gegen Ende des Mittelalters*, I, II, *Smiles, Lives of the Engineers*, *Walford, Fairs*, *Warner, Landmarks in English Indus History*

CHAPTER XIII

GENERAL SUMMARY OF MEDIÆVAL COMMERCE

103. The world commerce of the Middle Age embraced three great fields, each with its own characteristic agricultural and industrial products. (1) northern and central Europe, (2) the western Mediterranean countries, and (3) the Orient, including the eastern Mediterranean and Black Sea countries and the Far East

104. The most important raw materials circulated through the three fields of mediæval commerce were wool, flax, and silk, the first came chiefly from England, Spain, Asia Minor, and the Black Sea countries, the second from Germany, Russia, the Netherlands, Ireland, Spain, Scandinavia, and various Asiatic countries, the third from Greece, the Ægean islands, the Far East, Italy, and France. Other characteristic raw materials and agricultural products furnished to commerce by the leading countries were as follows: the Orient, spices, herbs and drugs, dyestuffs, fine woods, pearls, coral, precious stones, ivory, gold, and silver; Russia, hides, furs, tallow, wax, honey, hemp, and grain; Greece and the Ægean islands, grain, fruits, and nuts; Italy, salt, fish, nuts, fruits; Spain, silver, copper, lead, zinc, fruits, wax, and hemp; France, salt, fruits, and madder; England, tin, lead, grain, horses, cattle, and hides; Scandinavia, hides, furs, fish, blubber, timber, resin, hemp, copper, and iron; Denmark, fish, horses, cattle, and grain; Germany and central Europe, grain, amber, timber, salt, hemp, hops, and fruits

105. The chief manufacturing centers during the first half of the Middle Age were in the Orient, but during the second half two great manufacturing regions were developed in western Europe, first in the south and later in the north. The first of these western regions embraced such industrial cities as Milan, Florence, Genoa, Venice, Pisa, Lucca, Naples, Siena, Ancona, Bologna, Verona, Marseilles, Montpellier, Narbonne, Nîmes, Toulouse, and Barcelona, the second embraced numerous towns and cities in Flanders, northeastern France, and, late in the Middle Age, the eastern counties of

England and certain Dutch cities During the latter portion of the Middle Age the cities of Flanders and Italy were the most thriving industrial centers of the world

106. The commercial routes of the Middle Age may be grouped into two classes: (1) those from the Orient to the West, and (2) those from the Mediterranean countries to northern Europe Of the former class there were, first, the several routes from the Far East to the eastern Mediterranean and Black Sea ports, second, the maritime routes from the eastern Mediterranean and Black Sea ports to the western Mediterranean ports, where they merged into the various routes running to central and northern Europe, third, the overland routes from Constantinople and southern Russia running directly to central and northern Europe along the Danube, Dnieper, Oder, Rhine, and other river systems. The exact course followed by these various routes and the leading commercial centers lying along them will appear clearly on the accompanying map

107. Many obstacles impeded the development of commerce during the Middle Age First, there were many physical obstructions along the various routes, especially those in the West, — many uncleared forests, unfordable streams that were poorly bridged, badly constructed and poorly repaired highways; the primitive means of transportation generally magnified the distances traveled. To these obstacles in the way of land traffic must be added the never ending system of tolls and customs duties, laws restricting and even prohibiting migration and travel, numerous wars, and the constant dangers from robbers On the sea there were the difficulties arising from storms, in a period when navigation was very imperfect, and the constant danger of war and piracy Then, too, it was a very common practice for the innumerable petty feudal governments to grant letters of marque to privateers, who thus virtually became licensed pirates, and equivalent letters licensing reprisals on land This law of reprisal was a continual menace to foreign merchants traveling through or dwelling in the territories where such laws existed, for their goods were at any moment liable to be confiscated under the guise of regular legal procedure. So extensive was this practice of privateering and reprisal, that frequently it became war in disguise We must also notice the general prejudice against the merchant and his traffic that existed throughout the Middle Age, a prejudice which extended to every class except the merchants themselves. No doubt there was some foundation for this prejudice in the many petty tricks of trade resorted to by merchants, especially

the wandering peddlers and hucksters, but the real cause for this prejudice lay deeper in the false economic ideals of the age. One important source of these false ideals was the Church, whose attitude towards commerce will be noted in the next paragraph, and another important source was the feudal system. The feudal ideal was for each district, and even each estate, to be economically self-sufficient. Only a very low standard of living could be maintained under such a system, and we accordingly find the feudal nobility of Europe, with very few exceptions, arrayed against commerce. They looked upon commerce simply as a fruitful object of plunder, except as they happened to have, in unusually fortunate years, a surplus of crops to be sold. Another great hindrance to mediæval commerce was the general scarcity and the almost infinite diversity of money, for both of which the feudal system was largely responsible. Most of the money was bad, and it had to be changed as many times as there were fiefs, and always at a loss to the merchant. The *droit d'aubaine* also impeded commerce, as it rendered the property of merchants dying outside their own country liable to confiscation, and the merchants themselves liable to become serfs if they tarried more than a year and a day in a foreign fief. The general backward condition of agriculture, the slow growth of manufactures in most sections, and the exaggerated protective system, which will presently be described, were other important causes of the slow growth of commerce during the Middle Age.

108. The influence of the mediæval Christian Church upon the development of commerce is somewhat difficult to estimate. On the one hand, she did many things which, directly or indirectly, tended to encourage commerce, and yet she clearly condemned many forms of commerce and did many things which seriously impeded commercial progress. Let us, therefore, first enumerate the most important ways in which the Church aided industrial and commercial development during the Middle Age. For one thing, the Church was democratic, encouraged labor, and in many ways used her influence to protect the laborer, she preached "good faith," emphasized human brotherhood and equality, and advocated other principles that indirectly aided traffic, she decreed the "Peace of God" or the "Truce of God," which was very effective at certain times in securing at least a measure of law and order; she founded many hospitals and almshouses, which were very helpful to foreign merchants, and in other ways protected them; she granted many concessions of market rights in her territories, and secured many exemptions from tolls and

market dues, she excommunicated those who destroyed the highways, she expended large sums for costly imports, her monasteries did an immense amount of pioneer work in every part of western and central Europe, converting forests, marshes, swamps, and other waste lands into skillfully cultivated and well-managed farms, introducing new crops, fertilizers, and rotation, improving live stock by careful breeding, and in various other ways stimulating the development of scientific farming, all of which ultimately aided commerce very greatly. On the other hand, the Church discouraged and looked with disfavor on commercial profit, because it seemed too much like interest. Interest was forbidden at this time by the Church largely on account of the very high rates which were generally charged. In fact, the common mediæval rates of interest were so high as to amount to what would now be regarded as usury in most countries. Then, too, the mediæval Church considered commerce non-productive, on the ground that the merchant was not a manual laborer and did not add anything to the value of the object which he sold. She believed, therefore, that the merchant did not merit the enormous profits which he received, the really valuable service rendered in transporting objects from the producer to the consumer was not duly considered in the commercial theory of the Church. Furthermore, the ascetic ideal of extreme self-denial, which the Church recommended, was to a certain extent responsible for the comparatively low standard of living prevailing in a great part of the Christian world during the Middle Age. Even after the Crusades this ascetic ideal was but slowly overcome. The Church for some time refused to sanction trade with the Moslems, because they were regarded as pagans. The Moslems, however, were the very ones from whom the greatest commercial advantages could be derived at that time. Toward the close of the Middle Age these restrictions were considerably relaxed, and gradually they were entirely abolished. Interest, too, was allowed about this time, after having been proscribed for many centuries by the earlier authorities of the Church.

109. The mediæval "protective system." By this term is meant the universal tendency of the mediæval governments to regulate, under the guise of "protection," every minute detail of industry and commerce. Everywhere we find duties on nearly all imports and exports, many of which were absolutely prohibitive. These restrictions were the more obnoxious because of the large number of fiefs into which western and central Europe was divided, each one of which had its own duties. Each petty fief also imposed bridge

and highway tolls as an indemnity for repairs, which were seldom made; market and boating dues were universal and often excessive. The various governments frequently excluded foreign merchants from their territories, and prohibited certain trades and mercantile ventures altogether. Almost everywhere governments made the most minute regulations concerning trade and industry, defining with absurd precision what could or could not be done in each trade, who could engage in each trade, and often prescribing the exact industrial processes. Even the routes of trade, the times of departure of vessels, the ports to be touched at, the methods of shipping, the amount of freight to be charged, and the articles to be bought or sold on each voyage were often fixed by law, and the actual process of buying and selling was frequently strictly regulated and directly supervised by government officials. It was a very common practice for governments to fix arbitrarily the maximum prices of staple necessities. The apprentice laws of most countries were so severe as to almost create a caste system. Governments also frequently owned the instruments of labor and the vessels which transported merchandise, charging rental upon them. Certain industries and articles of trade were frequently made exclusive governmental monopolies, and governments invariably tried to monopolize commercial routes.

It is somewhat difficult to determine whether this all-pervading protective system worked, on the whole, more harm or good to industry and commerce. Looking at the question purely from the modern standpoint, forgetful of the mediæval conditions, one might utterly condemn the whole system. Bearing in mind, however, the many crude conditions prevailing, the many dangers from which industry and commerce had to be protected, we can see that, in spite of its defects, the system was an outgrowth of necessity and actually produced some good results. For example, the many dangers attending maritime commerce during the Middle Age seemed to justify rigid governmental supervision, and even governmental ownership of shipping, the frequent famines arising, the scarcity of food, and other conditions were plausible excuses for "maximum prices" and the prohibition of certain exports; the infancy of industry was the fundamental basis for its protection by import duties, security and facility of travel and transportation were the pretexts for various kinds of tolls. Many of the mediæval restrictions are still regarded as legitimate by many governments, as, for example, import duties, license fees, tonnage dues, and a certain amount of

regulation of markets, shipping, and manufactures. Furthermore, the whole tendency of the Middle Age towards industrial and commercial monopoly is perhaps excusable on the ground of the comparatively narrow limits of trade and industry during that period; the field was so narrow that it could be easily controlled artificially, and was therefore regarded as a perfectly legitimate one for the exercise of monopoly. What was not clearly seen was that the field of profitable industry and trade was not necessarily to remain permanently narrow, but was capable of limitless expansion, and that therefore exclusive monopolies and minute regulations only checked this expansion. While it is easy to justify many features of the mediæval protective system on the ground of necessity, and even to point out certain important temporary advantages which it produced, it is none the less true that the system was extended too far, sought to regulate too minutely and rigidly all the details of commerce and industry, and thus not only aggravated many of the very evils which it sought to remedy, but practically destroyed economic freedom, and in this way proved a serious barrier to commercial and industrial development. Furthermore, although many of the protective restrictions were originally imposed from the best of motives, the system undoubtedly degenerated in many countries into a monstrous machine worked largely for money-making purposes by the governments and their interested backers. It was gradually found to be such a lucrative source of revenue both to the governments and to the unscrupulous "lords of industry," who arose everywhere, that they generally supported each other most heartily, and readily played into each other's hands. This, therefore, is another explanation of the fact that for so long a time both industry and commerce were obliged to pay so heavily for every ounce of privilege and every inch of progress.

110. The merchant and craft guilds in the mediæval cities were a logical outgrowth, and, in fact, a part of the protective system just outlined. They generally started as good fellowship clubs, more or less religious in their nature, and always had attached to them very commendable relief features. In various countries at different periods there grew up four different kinds of guilds: (1) *religious guilds*, (2) *frith guilds*, or police and legal protection guilds, (3) *merchant guilds*, and (4) *craft guilds*. It is the last two kinds of guilds that concern us. Of these two the merchant guilds generally ranked higher and had a greater influence. They were combinations of the merchants of a town for purposes of mutual protection in their trade.

They frequently involved great accumulations of capital under one management for carrying on trade in foreign and domestic wares, and would to-day be called monopolies and trusts. While such combinations were necessitated by mediæval conditions, and while mercantile frauds were greatly checked by them, their constant tendency was towards a monopoly of trade. As already noted, the narrow limits of mediæval trade and the difficulties involved in carrying it on made it comparatively easy to form such monopolies, while the great profits afforded abundant inducements to the merchant princes of the period. Frequently these merchant guilds became specialized: there were silk guilds, woolen guilds, spice guilds, glass guilds, just as there are to-day a sugar trust and an oil trust. These specialized merchant guilds controlled exclusively the trade in their respective articles in one or more cities, and sometimes throughout Europe. Gradually, also, they gained enormous political power and practically controlled the town governments, frequently, indeed, they were the towns, the guild government being identical with the town government. No doubt these guilds accomplished great good in developing the growth and freedom of the towns and of the third estate, and this led indirectly to the more democratic free governments of to-day, but, on the other hand, they were frequently very tyrannical, and were instrumental in developing some of the worst despotisms that the world has ever seen, and almost universally they finally tended to dwarf and cripple commercial enterprise. The craft guilds were not generally as important as the merchant guilds, but they were none the less active in their sphere. They, too, had their origin in necessity. All sorts of industrial frauds and shoddy workmanship were practiced by the more irresponsible artisans who did not belong to these organizations, and these guilds originally were formed primarily to secure good workmanship and to protect their members against unskilled labor. Undoubtedly they did much to develop skillful manufacturing during the earlier stages of their existence, and they, like the merchant guilds, added very commendable insurance and relief features to their work, but more and more, by discouraging competition, they checked the growth of an extensive system of manufactures.

111. Mediæval fairs and markets We have thus far referred many times to "markets" and "fairs" without explaining these terms. Throughout the ancient and mediæval world trade was mostly "periodic," that is, it was carried on at markets and fairs held on special days or seasons, while in the modern world it is chiefly "permanent," that is, conducted by merchants and shopkeepers

permanently located in one place. In the ancient and mediæval world permanent trade was confined almost entirely to the largest cities, and was much less common even there than in the modern city. In mediæval Europe the population lived mostly in villages too small to support a permanent trading class, and then wants had to be provided for chiefly at fairs and markets held periodically. Such fairs and markets were very general throughout the ancient and mediæval world, and traces of their existence among many primitive peoples have been found in all parts of the world. There was a distinction between a fair and a market. In the first place a market was more local than a fair, and usually supplied only one community, while the fair always supplied a larger territory, secondly, markets were usually held only for one day, either monthly, weekly, or more rarely semiweekly, while fairs were generally held yearly for a longer time, varying from one to seven or eight weeks according to custom and the amount of trade to be carried on, thirdly, the fair was chiefly for wholesale trade, and the market for retail trade. Originally fairs were generally established at central places where religious festivals were held, or where tribes were accustomed to assemble for their primitive political and judicial proceedings. Later, fairs were established in or near every important town and city. Generally each market or fair held a special charter conferring on its governing body of leading merchants rights of government quite distinct from those of the town or city where it was located. In the case of the fair, this separate legal existence was very important because it protected, to a certain extent, foreign traders. The larger fairs developed quite a complete system of self-government, with courts separate from the ordinary local courts, where merchants of all nationalities could defend their rights with a special body of mercantile law or custom as a basis. Generally, however, the various local and general governments reserved the right of regulating and supervising fairs and markets, and this right was frequently exercised to great excess. There is scarcely an important town or city in Europe to-day where at one time or another there was not held some famous fair. In England the most famous mediæval fairs were held at Stourbridge, Winchester, Westminster Abbey, Stamford, Portsmouth, St Edmonds, Boston, St Ives, Abingdon, and Northampton, in France, at Montpelier, Marseilles, Beaucaire, Lyons, Paris, Troyes, Nîmes, Besançon, Beauvais, Arras, and Calais; in Germany, at Leipzig, Ratisbon, Frankfurt-am-Main, Frankfurt-am-Oder, and Hamburg. During the twelfth and

thirteenth centuries the fairs of Champagne in northeastern France were the most important trading centers north of Italy. These fairs were organized into a system of trading approaching the permanent type, the different fairs in this group were held in succession, so that they filled the whole year. In the fourteenth century the Flemish fairs became the most important in Europe and held this position for several centuries. There are still existing some very interesting survivals of mediæval fairs, of which the best example, perhaps, is the great fair at Nijni-Novgorod, in Russia.

112. Mediæval currency, banking, and credit From the beginning of the Christian era to the tenth century there seems to have been a steady decrease in the European supply of specie, owing chiefly to its movement from the West to the East to pay for luxury. One authority estimates that the amount decreased from about \$1,800,000,000 to \$165,000,000 during this period. We must link this decrease in the specie with the fact that the feudal lords of Europe were generally opposed to its introduction into their fiefs, for as long as there was no money it was easy to exact payments in kind from their vassals. There was thus a natural warfare between commerce and money, on the one hand, and the feudal lord on the other. Scarcity of money and its poor circulation in Europe was therefore at once one of the principal economic causes of feudalism and at the same time the necessary effect of the continuation of the system. Another important cause for the scarcity of specie in circulation was the fact that for many centuries a large portion of it was either hoarded or used in the splendid services of the Church. A very large part of the specie used for monetary purposes during the Middle Age was circulated without being coined, and when thus used was weighed by the pound, half pound, or mark, the most generally recognized standards of weight being those of Troyes and Cologne. Gradually, however, the coinage of money increased, and we find a perplexing variety of coins, owing to the fact that each feudal prince, for a long time at least, generally controlled the coinage in his own domain. We also find continual fluctuations in the values of these coins, on account of the frequent alterations of the currency by the kings and feudal nobles. For some time after the overthrow of the Roman empire, silver was the principal metal used for coins in the West, but Karl the Great was a bimetallist and tried to establish a ratio of one to sixteen between gold and silver, taking as the unit of value in his currency the value of a pound of

silver.¹ His system of coinage was introduced into most of the western countries, and his *pound*, or *libra*, gave its name to the English *pound sterling* and the French *lire*. Unfortunately, the division of his empire after his death prevented this system from continuing uniform.

The most important silver coins in general use during the Middle Age were the silver *bezant*, worth from 25 to 50 cents, the *denarius*, or *pfennig*, as it was known among the older Teutonic peoples, worth at first about 8 cents, but finally decreasing to about 2½ cents, the silver *florin*, struck at Florence, and worth about 8 cents; the *meta-pane*, struck at Venice, and worth about 10 cents. Of these coins the one most widely used was the *denarius*, or *denier*. In the fourteenth century a large *denarius*, or *groat* (*grossus denarius*), was struck, which was worth about 26 cents. Up to the time of the Crusades the only gold coins known in Europe were the Byzantine *solidi*, or gold bezants, the Italian *tari*, and the Moorish *maurabotmi*. The *solidus* was originally worth about \$3 25, but subsequently deteriorated in value, owing to frequent debasing. From the ninth century onwards the *solidi* passed current throughout Europe, including England, under varying names, such as *solde*, *sol*, *sou*, *solthing* (in Livonia), and *zlotynk* (in Russia). The *tari*, or *tarentini*, named after the Italian city where it was first struck, was less generally used than the *solidus*, and was worth about 80 cents. The *maurabotmi*, or *sarazens*, was made of 15-carat gold, the name survives in the modern Spanish copper coin, the *maravedi*. After the Crusades we find other gold coins in circulation. In Italy were coined, in the thirteenth century, *augustals*, *ducats*, or *sequins*, and *florentines* or *florins*. The *augustals* were named in honor of the emperor, Frederick II, and weighed half an ounce. The *florin* contained fifty-four grains of gold, and was worth about \$2 50. The *ducat*, named after the *duca*, or *doge*, was coined by Venice in imitation of the *florin* and the value was about the same. Genoa, the Holy Roman Empire, and other states also imitated the gold *florin*, Hungary and the Rhine countries, in the fourteenth century, coined gold *guilders* that were nearly equivalent to the Italian *florin*. Smaller gold coins were struck in those countries where trade was most active, under the names of *gold pennies*, *gold denars*, and *obols*. In addition to the above more generally used gold coins, there were many others

¹ The ratio between gold and silver fluctuated between one to nine and one to sixteen during the Middle Age, and differed considerably in the different countries.

in local use, as, for example, the French *fi anc*, the English *noble*, and the Flemish *reals*. After the discovery of the silver mines in South America the Spanish coins naturally became the most important in Europe and partly or wholly supplanted many of the former coins. It must of course be remembered that the values here given do not give a true idea of the purchasing powers of these coins during the Middle Age, on account of the scarcity of money these coins then represented a much greater relative purchasing power than to-day.

The great diversity of coins in general use gave rise quite early to an extensive business of money changing, which soon became quite lucrative. This business remained for a long time chiefly in the hands of Jews and Italians, especially Florentines, who had representatives stationed in every important mercantile center of the world. Gradually they originated a system of exchange by which specie was kept on deposit, and letters or bills of exchange were issued to balance international debts, instead of transporting specie. Various other banking functions were performed by these money changers, and finally, as we have seen, several state banks were created which practiced most of the modern banking operations.

In spite of the strong sentiment existing against the charging of interest on loans, this practice gradually became quite common during the Middle Age. The zealous opposition of the Church and the more tardy interference of civil tribunals only had the effect of creating numerous ingenious expedients for evading the law. Even in Italy during the thirteenth century the common rate of interest was from twelve to twenty per cent. The same rate prevailed at that time in the Rhine countries, but at Zurich the town council declared forty-three and one third per cent the legal rate, and numerous instances are on record of much higher rates being charged.

113. The general influences of mediæval commerce upon the development of civilization may now be briefly summarized. It is almost too evident for mention that Europe owes most of her towns and cities to the impulse given by mediæval commerce. In these towns great wealth was accumulated by commerce and industry, which was gradually turned into magnificent public and private buildings filled with many luxuries. By commerce chiefly was the mediæval ascetic ideal overcome and the general standard of living raised. It was the wealth afforded by commerce that gave the greatest men of the Renaissance the leisure and opportunity to create their masterpieces in art and literature. It was the contact brought about by commerce between the culture and refinement of

the East and the ignorance of the West which hindered the Europeans to a point where they could appreciate this art and literature. Furthermore, it was largely through commerce that Europe outgrew the feudal system, for the commercial towns and the third estate in them were the strongest supporters of the rising national governments in their final struggles against the feudal nobility. Commerce also undermined the economic foundation of feudalism by destroying the economic self-sufficiency of the individual fiefs and by extending the use of money, which made the peasants unwilling to submit longer to feudal exactions. While helping to destroy feudalism, commerce was creating in the third estate an intense desire to become the political and civic equal of the other estates, and by so doing helped to bring about the ultimate constitutional recognition of the principle of political equality. Mediæval commerce also hastened the recognition of the principle of religious toleration, the mutual commercial intercourse of Jew and Gentile, of Christian and Moslem, could not fail to have this effect. Neither should we forget the great influence upon all the subsequent development of civilization exerted by such codes of maritime law as the "Consolato del Mare," the "Judgments of Oléron," the "Gudon de la Mer," the "Laws of Wisby," the "Customs of Amsterdam," the "Laws of Antwerp," and the "Constitutions of the Hanseatic League," all of which were outgrowths of commercial intercourse. The tendency of all these codes was to break down commercial monopolies and proclaim the liberty of the seas, a tendency, however, which was not consummated during the Middle Age. These codes required all vessels to carry a flag, imposed penalties for piracy, regulated prizes, guaranteed the persons and property of neutrals, and established special tribunals for deciding commercial questions. Taken in connection with the well-organized consular systems of Venice and some other mediæval commercial states, they furnished a splendid foundation for the modern system of international law. Finally, we must note the influence of mediæval commerce upon the explorations and discoveries that mark the beginning of the Modern Age. It was commerce that furnished the motives for these great undertakings and the pluck to execute them.

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Cheyney, European Background of American History, *Cons*, Précis, I, *Cunningham*, Western Civilization, II, *Curschmann*, Hungersnot in Mittelalter, *Ehrenberg*, Das Zeitalter der Fugger, I, II, *Emerton*, Mediæval Europe, *Encyc Brit* (Banking, Barcelona, Compass, Crusades, Fairs, Florence, Genoa, Hanseatic League, Marseilles, Printing, Venice, etc.), *Fulke*, Geschichte des deutschen Handels, I, II, *Fulkner*, Statistical Documents of the Middle Ages, *Fyfe*, Merchant Enterprise, *Green*, Town Life in 15th Century, *Gross*, Gild Merchant, *Heycl*, Levantehandels, I, II, *Homans*, Cyclopedia of Commerce, *Inama-Sternegg*, Deutsche Wirthschaftsgeschichte, *Jessopp*, Coming of the Fairs, *Journ Pol Econ*, May, 1913, commerce and Industry in Spain, *Keary*, Vikings in Western Christendom, *Liber Albus*, *Lamprecht*, Deutsche Geschichte, III, IV, *Lavisse et Rambaud*, Histoire Générale, II, *Lindsay*, Merchant Shipping, I, *Mayer*, Lelubuch, *McCuillorh*, Dictionary of Commerce, *Noel*, Histoire du commerce, I, *Orley*, Romance, *Palgrave's* Dictionary, *Pigeonneau*, Histoire du commerce de la France, I, *Pirenne*, Histoire de Belgique, *Pohlemann*, Wirthschaftspolitik der Florentiner Renaissance, *Poole's Index* (also *Amer Econ Rev*) for periodical literature, *Putz*, Kulturgeschichte der Kreuzzüge, *Quar Journ Econ*, XVI, 413, Oriental Trade and the Rise of the Lombard Communes, *Robinson*, Middle Ages, *Roscher*, System, III, *Schmoller*, Mercantile System, *Seignobos*, Feudal Regime, *Thorpe*, Ancient Laws, *Waterston*, Cyclopedia of Commerce, *Worms*, Histoire de la Ligue Hanseatique, *Zimmern*, Hansa Towns — Many of these books contain further references. For special references on mediæval England, see Chapter XII.

PART III—EARLY MODERN COMMERCE

CHAPTER XIV

THE BEGINNING OF THE MODERN PERIOD

114. Some fundamental political characteristics of the early modern period must be noted in order to understand clearly its commercial development. In the first place, one notices in passing from the mediæval to the modern world a very significant shifting of the political center of gravity. The politics of the Middle Age was made chiefly by three personages, — the pope, the emperor of the West, and the emperor of the East. Their places were taken in the early modern period by the rulers of numerous national states: in the front rank, Spain, France, and England; in the second rank, Portugal, Sweden, Denmark, Bohemia, Hungary, and Russia, — not yet a Germany or an Italy. In the second place, we notice that these numerous coexisting states, with their conflicting interests and passions, were bound to engage in long and bitter wars. In fact, it does not take one long to discover that war is the normal condition during at least the first three centuries of the modern period. Abundant causes for conflict appear on the very surface: all these nations would struggle desperately to secure their natural geographical boundaries; commercial and maritime rivalries would bring their fleets into hostile collision on all the seas and oceans of the world; royal intermarriages and inheritances would frequently cause long and bitter wars. At the very beginning of the modern

period the Protestant Reformation, by creating rival religious parties in nearly all European countries and rival international alliances, added another fruitful cause which was destined to deluge Europe in blood for several centuries. The discovery of America and the Cape route, together with the monopolistic colonial policies applied to the new possessions, served as added fuel to the all-consuming flame of war.

115. Certain economic and intellectual characteristics also separate quite clearly the early modern from the mediæval period. Most of these characteristic differences were outgrowths, directly or indirectly, of the Renaissance and the Protestant Reformation.

116. The Renaissance, in its broadest meaning, was a general awakening of the European mind, by which the whole ideal of life existing during the Middle Age was completely revolutionized. With a few exceptions, such as occasional outbursts of poetry and cathedra building, the evanescent brilliance of Moorish civilization in Spain, and a certain degree of luxury in some other parts of Europe, the Middle Age was a period of stagnation and joylessness, permeated by the ideal of self-denial, which regarded "beauty as a snare, pleasure a sin." The Renaissance shattered this ascetic ideal, and this fact had a profound significance in the history of commerce. The shattering of the mediæval ideal of life caused a great increase in the use of luxuries and a general elevation of the standard of living, notably in Italy, France, and Flanders. It is evident, therefore, that the Renaissance gave a great stimulus to commerce and manufactures as the two means for supplying the newly craved luxuries.

117. Three great inventions, introduced into Europe during the Crusades and the Renaissance, had an important influence upon commercial development. gunpowder,

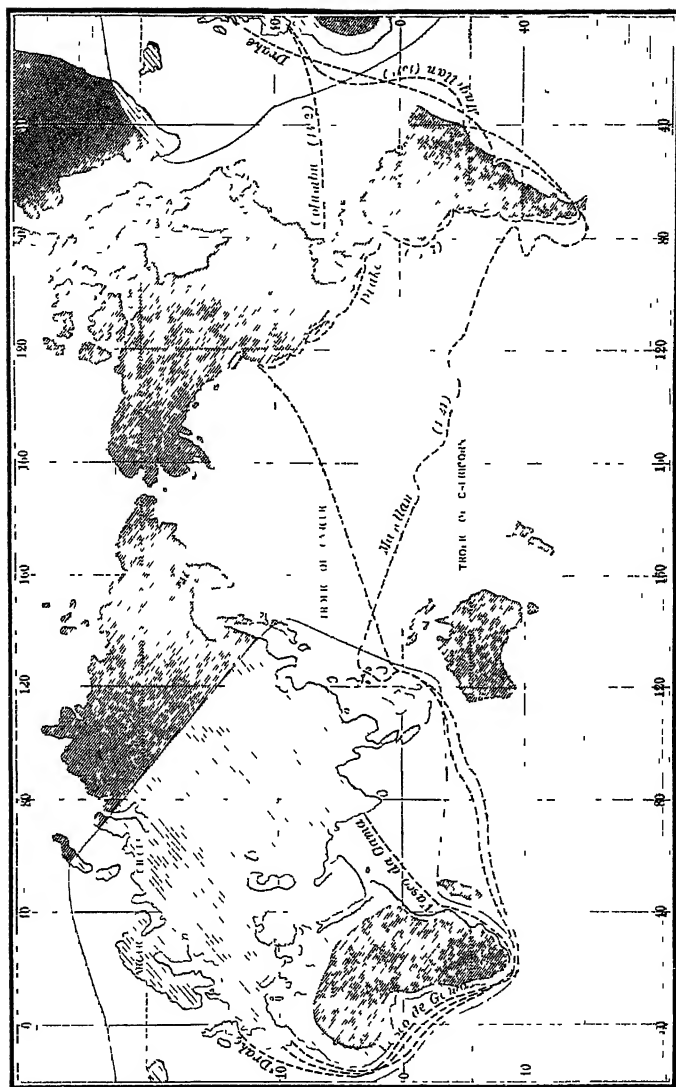
the compass, and the printing press. The first of these inventions was one of the principal causes of the overthrow of feudalism, a thing which had to be accomplished before any great commercial progress could be made. The influence of the second invention upon the growth of commerce was even greater and more direct, because it was a necessary antecedent of the epoch-making geographical discoveries of the fifteenth century. The third invention cheapened books and made possible the diffusion and popularization of the new geographical knowledge, thus stimulating further discoveries and explorations.

118. Three great geographical discoveries made about the close of the fifteenth century were destined to revolutionize the commerce of the world: the discovery of America, the rounding of the Cape of Good Hope, and the circumnavigation of the earth.

I. *Commercial significance of the discovery of America.* For one thing, this discovery, together with that of the cape route, caused a sudden and complete shifting of maritime power. The Mediterranean, on whose shores had risen and fallen so many mighty states, suddenly became of only secondary importance; so also the Baltic became much less important. The place of these two seas was soon usurped by the ocean, and the commerce of the world was henceforth to pass over all the great waters of the world. Consequently, Spain and Portugal, and later Holland, England, France, and other countries, took the place of Venice, Genoa, and Alexandria, and the fleets of all these countries were to contend for the maritime supremacy of the world. Furthermore, the discovery of the cape route reopened to Europeans an extensive field of commerce in the East, which had been nearly closed by the conquests of the Turks, while the discovery of America gradually opened an extensive new field in the West. American products, some of which

were indigenous, and others, the cultivation of which was introduced into America by Europeans, now entered into European consumption. maize, rice, other cereals, tobacco, cocoa, potatoes, Peruvian bark, coffee, pepper, sugar cane, cotton, indigo, and certain medicinal and dyeing products. Again, the influx of the precious metals from America into Europe, by bringing about a general increase of prices, wrought an important economic revolution in every European country. Unfortunately, the Spaniards in the West and the Portuguese in the East laid the foundations of vicious colonial policies, which were not much improved upon for a long time by their successors. In nearly every case, for several centuries, the colonies were regarded only as feeders and sources of plunder for the mother country. Thus the commercial development of both the East and the West was long retarded and the real commercial interests of Europe sacrificed.

II *Rounding of the Cape of Good Hope* As early as the close of the thirteenth century, a Frenchman, Lancelot Maloisel, resumed the old route along the west coast of Africa, which had been long abandoned, and went as far as the Canaries. It is also claimed that some residents of Dieppe, in the fourteenth century, pushed as far as the Gulf of Guinea, founding in northern Guinea, Little Dieppe, Little Paris, and Elmina. At the beginning of the fifteenth century, Jean de Bethencourt conquered the Canaries. The Hundred Years' War and civil wars, however, prevented France from following up these early explorations, and consequently it was left to the Portuguese, under the direction of Prince Henry the Navigator, to resume and extend this work. In 1434 they passed Cape Bojador; in 1441, Cape Blanco, in 1445, Cape Verde. In 1460 Prince Henry died, but his work was carried on by his successors, in 1462 Cape Sierra Leone was passed; in 1471



THE KNOWN AND UNKNOWN WORLD JUST BEFORE COLUMBUS SAILED, THE VOYAGES OF COLUMBUS, VASCO DA GAMA, MAGELLAN, AND DRAKE

the gold coast was reached; in 1474 the equator was crossed; in 1484 Diego Cam discovered the mouth of the Congo. In 1486 Bartholomew Diaz passed a little way around the southern extremity of Africa, and named the promontory the Cape of Storms and Torments. Lest this name might frighten future navigators, King Emanuel the Fortunate changed it to the Cape of Good Hope. In 1497 Vasco da Gama rounded the cape, and, after touching at Mozambique, Mombasa, and Melinde, this venturesome navigator, guided by some Moorish sailors, struck across the Indian Ocean, reaching Calicut May 19, 1498. Thus was discovered a new route to the Indies, an event fraught with the greatest consequences in the history of commerce.

III. *The circumnavigation of the earth* originated in a dispute between Spain and Portugal concerning the Moluccas, whence were obtained certain rare spices, like nutmegs, cloves, and mace. Under the papal bull of Alexander VI, which granted Portugal all new territories lying east of a line running north and south midway in the Atlantic, Spain's title to these islands was not recognized. Magellan, who had left the service of the king of Portugal through disappointed ambition, persuaded the king of Spain that these islands could be reached by a western route and that thus the Spanish title could be made clear. Accordingly, he was sent out Aug. 10, 1519, to find such a route. He crossed the Atlantic in a southeasterly direction, sailed through the strait which bears his name, and thence, steering northwest, reached the Ladrões early in the spring of 1521, after meeting with many delays and dangers. Soon after, the brave navigator was killed in the island of Mactán, one of the Philippines; but one of his ships, the *Victoria*, continued the voyage to Borneo, the Moluccas, Timor, and Sumatra, and, returning round the Cape of Good Hope, reached Spain, Sept 7, 1522. This circumnavigation of

the earth removed all doubt concerning its rotundity, cleared men's geographical conceptions in many ways, and thus paved the way for many great commercial undertakings. This expedition also led to the Spanish annexation of the Philippines, an agreement being made with Portugal whereby this was allowed and the Spanish claim to the Moluccas bought off by Portugal.

119. The economic effects of the Reformation. The prolonged and bitter wars and persecutions provoked by this movement produced their natural economic results: loss of property, loss of laborers by death and emigration, decline of agriculture, manufactures, and commerce, and a shifting of industrial and commercial centers. Nearly all European countries felt these effects, but Germany, France, the Netherlands, and England felt them most, — Germany the most keenly of all. On the other hand, some countries like England, Prussia, and Switzerland profited greatly by the emigrations resulting from the Reformation. This movement also produced other very important economic effects. Of these, the most evident and important one in those countries that threw off allegiance to the pope was the secularization of vast amounts of church property. This sudden changing of hands of a very large part of the lands and other property of Europe had a very great influence upon agriculture, manufactures, and commerce. Again, the Reformation led to serious social revolts in various countries, all of which tended to derange industry and commerce. Another economic effect of the Reformation was the lessening of the number of holy days and a consequent increase in the productive power of the Protestant countries thus affected. Furthermore, the decrease in the number of fast days led to a perceptible relative decrease in the consumption of fish and a corresponding increase in the consumption of meat, the displaced fishermen generally

becoming farmers. Not the least important effect of the Reformation upon industry and commerce was the fact that it led to stricter morals, a stronger inclination to labor, and more progressive industrial habits. There was also a greater simplicity of worship and dress in the Protestant countries, which led to more thrifty habits and the accumulation of wealth; but at the same time this removed one important feeder of industry and commerce.

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Additional references on Chapter XIV—*Adams*, *Civiliz Mid Ages*, *Beazley*, *Prince Henry the Navigator*, *Bourne*, *Spain in America*, *Burckhardt*, *Renaissance*, *Cheyney*, *Background*, *Emerton*, *Encyc Brit* (Navigation and other articles), *Figgs*, *Political Thought in the 16th Century*, *Fiske*, *Discovery of America*, I, II, *Oxley*, *Romance*, *Rogers*, *Econ Interp*, *Seeley*, *Expansion of England*, *Van Dyke*, *Age of the Renaissance*, *Williamson*, *Maritime Enterprise, 1485–1558*.

CHAPTER XV

THE PORTUGUESE ASCENDENCY IN THE EAST

120. The Portuguese conquest of the East was rapidly accomplished after Vasco da Gama discovered the cape route. Alvarez Cabral, who landed on the Malabar coast in 1499, was at first favorably received by the natives and allowed to establish a factory there, but the factor soon got into trouble and was killed. Cabral then sailed farther up the Malabar coast, where more friendly native chiefs allowed him to establish factories at Cochín and Cananore. For several years, however, these advance guards of the Portuguese encountered much opposition from the natives. Fortunately, reinforcements arrived in 1504, and Calicut was successfully bombarded. Just at this juncture Venice, fearing the loss of her commerce with the Indies, secured aid from Egypt, and in 1508 the combined fleet of the two states defeated the Portuguese in a great naval battle. The Portuguese viceroy, Francesco d'Almeida, however, quickly rallied all his forces, suddenly fell upon the allies, and almost annihilated them, thus establishing the Portuguese power in India. Alfonso d'Albuquerque, the successor of Almeida, completed the conquest of the East so brilliantly begun. In 1510 he captured Goa and made it the capital of his Indian empire, in 1511 he captured Malacca, occupied the Moluccas, and subjected the neighboring states; in 1515 he took possession of Ormuz, the key to the Persian Gulf; in 1518 the Chinese emperor granted him Macao, which became the base of trade with the

Celestial Empire; in 1542 Japan was accidentally discovered. Thus the Portuguese very quickly acquired a complete ascendancy throughout southern Asia and the adjacent islands from the Persian Gulf to Japan, and in the meantime their power had been riveted along most of the eastern and western coasts of Africa.

121. The new world in the East thus conquered by the Portuguese was really a very old world possessing boundless riches and an already organized commerce. For centuries the Arabs had traded all along the eastern coast of Africa and the southern coast of Asia. They had regular commercial relations with merchants in India, China, Japan, and many of the East India islands. Mozambique, Ormuz, Calicut, Malacca, and Canton were all very important commercial centers. The Portuguese did not, like the pioneers of America, have to subdue and develop a virgin continent. They simply had to prove the superiority of their arms over the effete Eastern peoples, and the rich resources and profitable trade of this old world in the East fell into their hands. Few changes were made in the organization of this commerce: the articles traded in, the sources of supply, and the ultimate consumers remained practically the same. At the same time a few changes occurred; Goa replaced Calicut, and Macao was substituted for Canton. The greatest change, however, was the shifting of the route to Europe from the Red Sea and Mediterranean to that by way of the Cape of Good Hope.

122. The Portuguese route to the East was usually from Lisbon along the western coast of Africa, around the Cape of Good Hope without stopping (on account of the precipitous shores), up the eastern coast to Mozambique, thence across the Indian Ocean to Goa. Sometimes, instead of going to Mozambique, the Portuguese vessels took a more direct route from the Cape, coursing outside the island of

Madagascar and thence crossing to Goa. This latter route, however, was rarely followed, because the other one was more certain, better known, and added the advantage of trafficking in eastern African ports. The return voyage took the same course from Goa to the Cape; thence the Portuguese generally launched into the open Atlantic as far as St. Helena, thence running to Senegal, the Azores, and back to Lisbon. The schedule duration of the voyage, going and returning, counting the time at Goa for unloading and loading, was eighteen months and sometimes two years. The dangers from pirates and other sources necessitated sailing in fleets attended by convoys of war vessels.

123. The Portuguese commercial policy was what one might expect from the illiberal ideas then prevailing. Commercial liberty was unknown, and consequently the discoverers of the cape route sought to monopolize the benefits of their discovery. Portuguese merchants were of course the only ones allowed to bring goods from the Indies to Europe by this route. But this was not all: the Portuguese government reserved to itself a monopoly of certain spices; finally, the government also monopolized the intermediate commerce between different sections of the East. The traders from some countries were allowed to participate in this intermediate trade, but only within certain limits and upon definite conditions. For example, Hindoo boats were allowed to trade only along the coasts on the permits of the viceroy, good only for one year and revocable if they carried certain prohibited articles reserved to the Portuguese. Military stations were established in every part of the commercial empire—at Goa, Malacca, Mozambique, Ternate, and elsewhere—to guard against infractions of the rigid monopoly. Portuguese flotillas operated in every direction, with Goa as the leading center of this intermediate trade. As the Portuguese merchants

were not numerous enough to penetrate far into the interior, the interior trade was generally left to the Arabs, Moors, and Hindoos; but in nearly every case treaties were exacted from the native princes rigorously regulating this trade. Only Portuguese merchants could receive certain articles from these inland peoples or furnish certain others to them, and the prices of such articles were fixed in the treaties or by the Portuguese government. No one could engage even in this interior trade except on a permit from the Portuguese authorities.

124 Chief centers of Portuguese trade. Each important city and factory throughout the Portuguese empire had its special articles of exchange, its own clients, and its special regions for supplying. *Mozambique*, with a good harbor dominating a number of interior trading posts, exported negroes, ebony, gold, and ivory, receiving in exchange wine, oil, silks, linens, cottons, and glassware. *Socotra*, situated on an island at the entrance to the Gulf of Aden, furnished aloes, dates, mats, and perfumes brought from Arabia, which country had escaped Portuguese conquest. *Ormuz*, at the entrance to the Persian Gulf, exported medicinal drugs, spices, and horses brought by caravans from Syria and the Euphrates countries; tapestries, raw and woven silk, horses, and silver brought from Persia and Khorassan; salt from her own vicinity, and pearls from the neighboring Bahrein Islands. In exchange for these articles the Portuguese gave the fine stuffs of India and precious stones. *Diu*, on the Gulf of Cambay, was a very important center for inland trade in northwestern India. Here were secured such natural products as indigo, iron, copper, opium, grain, wax, and some valuable manufactured articles like silks, cottons, oils, and fine incrustations. The neighboring town of *Damaun* was the chief rice market. *Cochin* furnished pepper, sending annually more than one



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hundred and fifty shiploads to Goa. *Ceylon* exported cinnamon, tobacco, ivory, pearls, cotton, silk, and precious stones. *Negapatam*, on the more neglected Coromandel Coast, delivered chiefly opium and printed calicoes for shipment to Pegu and Siam. *Malacca* was the great center where were exchanged in large quantities many articles from Siam, Burma, Cochin China, China, Japan, and some of the East India islands: also wood, sandalwood, dyewoods, camphor, gold, tin, lead, copper, and precious stones. *Ternate*, the chief city of the Moluccas, exported nutmegs, cloves, and other spices, the trade in which was exclusively monopolized by the Portuguese. From *western African ports* the Portuguese secured ivory, gold dust, gums, cotton, and large quantities of negroes; from the *Canaries*, sugar; from *Madeira*, wines. The papal bull of demarcation (1493) and other causes checked the Portuguese in America, and they accomplished very little in that field. For a time, however, their fishing vessels were more numerous in the *Newfoundland fisheries* than those of any other nation, but they were soon driven away by the Dutch, English, and French. Some fitful attempts were also made to colonize *Brazil*, but the Dutch West India Company obtained control of that country. Although Brazil was recaptured in 1654, it profited Portugal very little.

125. Lisbon and the European carrying trade. After the discovery of the cape route, Lisbon was the natural center for the European trade with the East Indies. Furthermore, this city was halfway between Bruges, the great market of northern Europe, and Venice, the great Mediterranean market. The beautiful mouth of the Tagus afforded far better natural port facilities for maritime commerce than existed at either Bruges or Venice. These facts should have made Lisbon for a long time the great center of the European carrying trade, had the Portuguese

availed themselves of their opportunities. They might not only have brought colonial products as far as Lisbon, but might also have distributed them to all parts of Europe and thus have derived large profits from the additional freights. Instead of pursuing this policy, however, the Portuguese generally unloaded their colonial products upon Italian, Hanseatic, Dutch, or English vessels, and it was partly this mistake that soon made the rising city of Antwerp the great center of the European carrying trade.

126. The devotion of the Portuguese to the African slave trade was undoubtedly one of the chief reasons why they thus let the European carrying trade slip through their fingers. Lisbon enjoys the unenviable distinction of having been the first and, for a long time, the greatest European market for African slaves, and she jealously guarded her monopoly of this iniquitous traffic, which was developed rapidly and with hideous zeal all along the African coast.

127. The shipbuilding industry of Lisbon was another source of wealth of such importance as to help blind the Portuguese to the advantage of securing and retaining the European carrying trade. This city was for some time the greatest shipbuilder in Europe. An almost exhaustless supply of excellent timber was easily secured by floating logs down the Tagus from the forests along the river. The position of Lisbon in this industry may be judged from the fact that most of the vessels composing the famous Spanish Armada were built in her shipyards.

128. The decline of the Portuguese commercial empire was even more rapid than its rise. Among the causes for this may be noted (1) the neglect of agriculture and manufactures (except shipbuilding), (2) a poor colonial policy which hindered colonial development and antagonized the natives of the East, (3) the neglect of the military defenses of the colonies, (4) the rivalries among the viceroys,

(5) the enervation of the Portuguese colonists by luxuries and climatic influences. As a result of these and other causes, the Portuguese empire in the East had greatly declined by 1580, when the crown of Portugal was united to that of Spain in the person of Philip II. After that the wars with the Dutch and English soon resulted in the loss of nearly all the Portuguese colonies, and when Portugal again became an independent kingdom, in ~~1640~~ she was far too weak to regain what she had lost.

References — *Amer. Hist. Assoc.* Annual Report, 1893, 113-121, *Beazley*, Prince Henry, *Cheyney*, Background, *Hunter*, History of British India, I, *Osley*, Romance, *Stephens*, Story of Portugal, *Williamson*, *Yale Review*, XIV, 374, Portuguese Colonization in Brazil

CHAPTER XVI

THE SPANISH ASCENDENCY IN THE WEST

129. Spain at the beginning of the Modern Period seemed predestined to commercial leadership. Nature had endowed her with a splendid geographical position and rich resources. After having made steady progress for several centuries, her leading states were finally united by the marriage of Ferdinand and Isabella (1469), and this consummation was followed by a period of unparalleled territorial expansion. Her long struggle with the Moors was successfully terminated in 1492 by the capture of Granada, while the great discovery of Columbus, in the same year, threw a new world into her lap. A series of conquests and intermarriages soon brought under her control, in rapid succession, the kingdom of Naples, Spanish Navarre, the archduchy of Austria, and the Netherlands. The Spanish merchants had also felt the impulse resulting from political unification and geographical exploration; thriving commercial cities like Barcelona, Seville, and Bilbao traded quite extensively with Italy, the Netherlands, the Canaries, England, and more remote countries. On the other hand, the Italian and Hanseatic cities, which had for several centuries been the commercial leaders of Europe, were now declining; Germany was hopelessly divided; Portugal was fully occupied in the East; England, for various reasons, was not yet ready to enter into competition for the prizes to be won on the other side of the Atlantic. Everything, therefore, seemed to point to Spain as the leader in the New World.

130. The progress of Spanish exploration and conquest in the New World was at first remarkably rapid. Columbus, during his four famous voyages (1492-1504), explored Cuba, San Domingo, Jamaica, Porto Rico, and other islands, the northern coast of South America westward from the mouth of the Orinoco, the eastern coasts of Honduras and Central America. Yucatan was discovered in 1517; Florida, in 1512; the Isthmus of Darien and the Pacific, in 1513; the Rio de la Plata, in 1515. Then began the work of conquest: Cuba was conquered by Velasquez (1511); Mexico, by Cortez (1519-1521); Peru, by Pizarro (1524); Chile, by Almagro (1535). The silver mines of Zacatecas, in Mexico, were discovered in 1532; those of Potosi, in Peru, in 1545. Magellan crossed the Pacific from Cape Horn to the Philippines (1521); Urdaneta crossed it from Japan to Acapulco (1565). These are a few of the most important stages in the brilliant early progress of Spanish exploration and conquest.

131. The Spaniard, however, failed to properly improve his opportunities in the West and to become the commercial leader of the world. A few colonies were planted in Cuba, Porto Rico, Jamaica, and on both the North and South American continents; many convents were established and some bishoprics created; some cities were built, — Vera Cruz, Porto Bello, Caracas, Acapulco, Lima, Buenos Ayres, Valencia, Cumaná, and Panama; some trading posts were established and commercial relations begun. But generally the Spaniard proved himself more a conqueror, adventurer, a seeker of gold, and a religious proselyter, than a colonizer and successful merchant. While we must guard against forming an exalted concept of the stage of civilization attained by the natives encountered by the Spaniards, it is undoubtedly true that a fairly good system of agriculture already existed among them; they did some good

weaving, embroidering, and metal work; they carried on interior commerce at various fairs and markets, and some of them had a coasting trade; their towns were well chosen for commerce and defense. A wise policy of encouragement and development would have enabled Spain to build, on these industrial and commercial foundations already existing in the New World, a brilliant and permanent commercial empire.

132. The colonial policy of Spain. From the first the Spaniard in America blinded himself to almost everything except the silver mines. Little attention was given to the cultivation of the soil or the planting of any industry. The colonists exported only such products as could be obtained with little labor, and devoted all their energies to mining; hence they were almost entirely dependent upon the mother country for manufactured goods, and in many places even for grains and other foods. Ferdinand and Isabella introduced the olive and vine into South America and the West Indies, but eventually their cultivation was discouraged, except in Peru and Chile, for purely local use, so that the inhabitants would have to buy them from Spain. The manufacture of many articles was forbidden in the colonies, so that the whole laboring strength of the natives might be applied to the mines, and in order to give Spanish manufacturers and merchants an opportunity to extort monopolistic prices for their wares.

The Spaniards not only devoted themselves exclusively to the silver mines, but they also subjected all commerce with their colonies to very illiberal and vexatious restrictions. In 1503 the Chamber of Commerce was created, to act as the sole medium of exchange for merchandise going to or from the colonies, directly or indirectly. In 1511 the Superior Council of the Indies was organized and located at Madrid. After its reorganization by

Charles V, that body became the chief administrative authority over all colonial affairs, military and ecclesiastical as well as civil and commercial. The council was represented in the New World by two viceroys, one stationed in Mexico and one in Peru, and by numerous local governors and tribunals. The entire administration of the colonies was carefully kept in the hands of Spanish-born officials, to the exclusion not only of natives, but even of Spaniards born in the colonies of Spanish parents. The regulations of colonial commerce and industry were exceedingly minute. Heavy customs duties were imposed upon all imports and exports; foreigners were forbidden to settle in, or conduct any trade with, the colonies. Each kind of merchandise had its special warehouse, in which was a government factor, treasurer, and secretary, who registered everything brought there and superintended everything pertaining to the loading and unloading of vessels. All goods had to be carried to and from the colonies in royal ships, which sailed in fleets. Under the rule of Charles V a fleet of fifteen galleons left Seville twice each year for Vera Cruz, and one of twelve galleons left at the same intervals for Porto Bello. Under Philip II these fleets were increased to sixty and forty vessels respectively. Government agents stationed in these ports were charged with the duty of distributing imports to the places of consumption and of collecting metals for export. The Mexican market was not held at Vera Cruz, the place of shipment, on account of its unhealthful location, but at Jalapa; the market for Peru and Chile was held at Porto Bello, in spite of the pestilential surroundings. At the annual fairs of forty days duration, held in these places, the commanders of the galleons sold their cargoes to the local governors and their subordinate officials. The prices were generally so regulated that the commanders of the

vessels made a profit ranging from one hundred to three hundred per cent. There was practically no limit to the profits which the local governors and their subordinates could wring from their customers.

In his treatment of the natives, the Spaniard has been grossly misrepresented by many writers. While it is true that mining on a large scale was necessarily detrimental to the native population, the loss of life attributable to this cause has been greatly exaggerated. When it was found that the Indians could not endure the hard work in the mines, the more stalwart negroes were procured from Africa. At the first the Spaniards contracted with the Portuguese and Genoese for their supplies of negro slaves, but later they procured them chiefly from the English, who outbid the French. Outside the mining districts the Spaniards seem to have treated the native population with a considerable degree of kindness. Spain alone among the European nations endeavored to protect by law the natives in America.

133. The influx of precious metals and its effects. By centering most of her efforts upon the American mines, Spain was able to procure enormous quantities of the precious metals, especially silver. From 1492 to 1500 the average annual importation of precious metals into Spain was about \$350,000; from 1500 to 1545, \$3,000,000; after the discovery of the Potosi mines (1545) and the application of more skillful methods to the Mexican mines, the annual yield increased to \$11,000,000. The first effect of this influx of silver and gold was to stimulate commerce by increasing the demand for and the ability to pay for costly imports. Spain began to import more woollens, linens, laces, velvets, hardware, works of art, etc., from the Levant, Italy, the Netherlands, England, and France. Spanish manufacturers and farmers were also stimulated

to supply part of the new wants created by the influx of metals and other causes. At the same time the colonial demand for goods served as an additional stimulus to Spanish producers. For a time Spanish woolen, silk, velvet, armor, leather, and other industries thrived; under Philip II, Seville employed 16,000 looms and 130,000 hands for textiles. For a time also foreigners, especially Germans and Italians, settled in Spain and tried to develop manufactures. Unfortunately, however, the revival was spasmodic and temporary. In time the influx of precious metals was so great as to raise the general level of prices much higher than it was before.¹ As the causes for this increase of prices were not understood at the time, the Spanish government, legislating in the interests of consumers, fixed maximum prices for numerous articles, prohibited the exportation of certain products, and otherwise restricted Spanish industry. The Mesta, a great organization of sheep farmers with large privileges, seriously injured Spanish agriculture. The wars of Philip II were also very disastrous to Spanish agriculture, manufactures, and commerce. Furthermore, the "silver fever" was contagious and spread to all classes of society, making them more indifferent than ever to the development of those home industries that were so essential to their permanent prosperity. Other causes also, such as the incessant persecution of the Moors, who were Spain's best artisans and farmers, the bad financial policy of the government, and the Inquisition, conspired to produce speedy economic decline. Finally, the industrial spirit of Spain decayed so completely that her agriculture, mining, and manufactures

¹ It has been estimated that from the discovery of America to the end of the sixteenth century \$743,000,000 of specie were imported into Europe, chiefly through Spain. This more than quintupled the supply existing in 1492.

were nearly ruined, leaving her dependent upon other countries for nearly everything, even a large part of her food supply. Thus most of the precious metals procured from the colonies had to go to other countries to pay for imports and expensive wars, and enriched them rather than Spain. This was the penalty she incurred for her mistaken economic policy.

134. The decline of Spain's commerce and maritime power followed in the wake of her agricultural and industrial decline. The monopolistic prices prevailing in the Spanish colonies soon tempted Dutch and English smugglers to venture thither for the sake of the enormous commercial profits, while the industrial decline of Spain finally rendered her unable to supply her colonies with the very articles she had sought to monopolize. In the East Indies also Spain neglected her commercial opportunities when she obtained control of that region by the conquest of Portugal (1580). Her commercial and maritime decline was especially rapid after the beginning of the Dutch revolt (1579) and the defeat of the Armada (1588). Henceforth both England and Holland conspired to destroy her power completely. Thousands of privateering vessels were fitted out in those countries, and they eagerly watched for every poorly defended Spanish galleon laden with silver, while smugglers continued to swarm on every coast of Spanish America. So rapid was Spain's decline that by the time of the Peace of Westphalia (1648) her colonial and foreign commerce had been almost completely destroyed.

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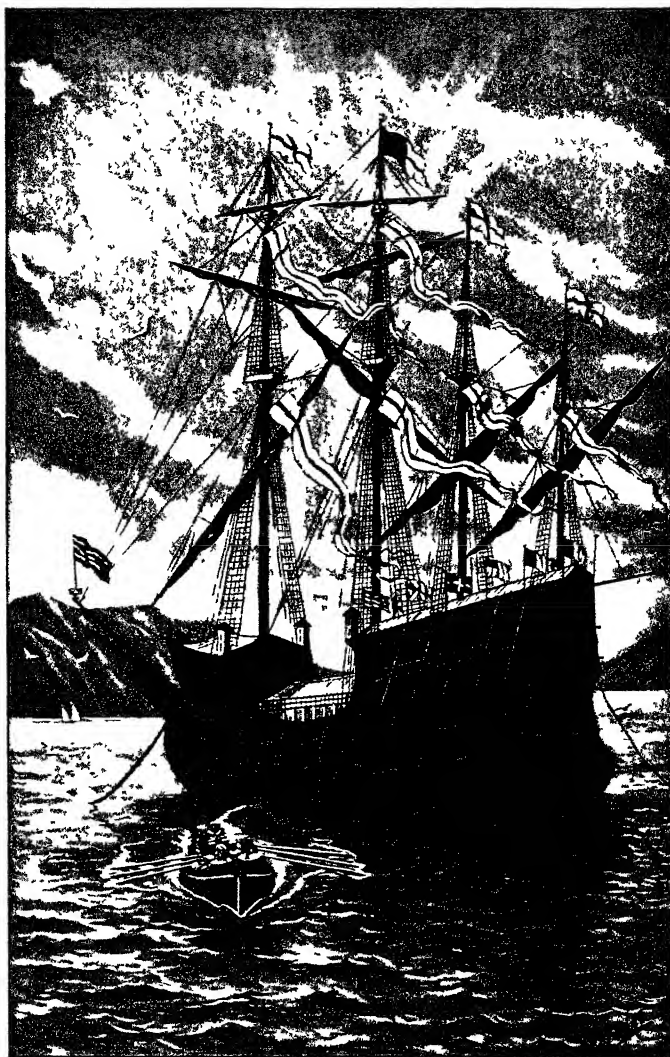
CHAPTER XVII

THE REMAINDER OF EUROPE DURING THE SIXTEENTH CENTURY

135. France emerged from the Middle Age with a strong absolute monarchy. The successful conclusion of the Hundred Years' War had inspired the nation and exalted the power of the crown. The new power of the monarch was then riveted by important financial and administrative reforms, and especially by the creation of a permanent standing army. With this new engine of power Louis XI, the unscrupulous apostle of Machiavelli, was able to overcome the strong array of feudal opposition led by Charles the Bold of Burgundy, and at his death the French monarchy was far on the road towards an ascendancy that was to astonish Europe. Not only did Louis XI render great services to French industrial and commercial development by inflicting serious blows upon French feudalism, but, as we have seen, he directly encouraged it in various ways with good results. Under Charles VIII (1483-1498) there was a slight industrial reaction, owing to feudal revolts and his foolish Italian wars. These wars, however, were not as destructive to French industry and commerce as one might at first suppose, because they were fought mostly in Italy, and industrial development was resumed under Louis XII (1498-1515), who followed closely in the steps of Louis XI so far as concerned the encouragement of agriculture, manufactures, and commerce.

136. Still further industrial and commercial progress was made during the reign of Francis I (1515-1547). In spite of all his wars and his despotic exercise of power, this monarch rendered important services to French industry and commerce. He fostered agriculture, enlarged the silk industry, established carpet manufactories at Fontainebleau, placed post horses at the disposal of private individuals, made the Paris system of weights and measures uniform throughout the kingdom, revised the customs duties, reformed the taxes, and instituted consular tribunals at Lyons and Toulouse, which in 1565 were extended to all important cities in the realm. Francis I also increased the merchant marine and maintained a navy, so that the French flag was respected in many waters. By his order, Verrazano explored North America and Cartier entered the St. Lawrence. Furthermore, he concluded one of the most important treaties in the history of French commerce, viz., the Capitulations of 1536, signed with Solyman II of Turkey. By this treaty the French obtained not only the right of trading with the Ottoman empire, but they were also made amenable only to French law and French consuls in all civil and commercial cases arising in the sultan's dominions. The protection of France over all oriental Catholics was recognized, and the French flag was the only one from Christendom besides those of Venice and Hungary admitted into Mohammedan waters, and this flag was to protect all merchants who would invoke its aid and accept the jurisdiction of the French consuls.

137. The influx of precious metals from America and the religious wars served as two serious checks to the steady development of French industry and commerce. The government, ignorant of the true cause of the general rise of prices produced by the increase of gold and silver, applied the wrong remedy, prohibiting the export of many articles



THE "GREAT HARRY"



and fixing maximum prices. The protracted religious wars inevitably depressed manufactures and agriculture and checked commerce. A memorial in 1597 stated that the French artisans made four times as many woolen goods before these wars as they made in that year. The memorial also stated that more than a thousand English vessels laden with woolens, stockings, thread, boots, shoes, and other merchandise were then coming to France annually. The Dutch took even a greater advantage of the religious wars, and not only flooded France with their manufactures, but preyed upon French commerce. Thus the closing years of the sixteenth century found French commerce and industry between two sharp fires of Dutch and English competition, and suffering a serious decline on account of domestic troubles and the monetary crisis.

138. By the beginning of the sixteenth century English merchants were going in their own vessels to the Netherlands, France, Denmark, Germany, Spain, Portugal, and Italy. Henry VII (1485-1509) built the *Great Harry*, which was the beginning of the navy that defeated the Spanish Armada. This reign was also marked by several commercial treaties, giving greater commercial privileges to English merchants in various foreign countries, especially Denmark (1490) and Flanders (1496). A humble beginning was made in the English exploration of the New World by the voyages of the Cabots, but England was not yet ready to use her opportunities. The decline of the Hansa enabled the native English merchants to form stronger trading companies and secure a monopoly of much valuable foreign trade. For example, the Merchants Adventurers' Company, an outgrowth of an earlier company, was rechartered in 1505 and soon became quite powerful. Other trading companies also, which had grown up during the latter part of the Middle Age, were now quite flourishing, and profited by the decline of the Hansa.

139. During the reigns of Henry VIII (1509-1547), Edward VI (1547-1553), and Mary (1553-1558) there was a strange mixture of opposite economic tendencies in England. On the one hand, industry and commerce were deranged and checked by various wars and consequent high taxes, the religious troubles, and the bad economic policy of these rulers. The confiscation of the monastery and gild lands, and the turning of most of them into large sheep walks, threw nearly all of the former tenants out of employment, and the rents of such lands as were not thus converted were raised to a ruinously high pitch. In either case, pauperization was the result. The influx of precious metals from America and the frequent debasements of the currency, especially by Henry VIII, brought about a much higher general level of prices, which increased the sufferings of the laboring classes and helped to enlarge the army of paupers. On the other hand, the increased amount of wool grown on the confiscated lands, together with the much higher prices received for this and other products, gave a stimulus to English industry and foreign trade. The continued decline of the Hanseatic and Italian cities also enabled English merchants to play a more important part in foreign commerce.

140. The reign of Elizabeth (1558-1603) witnessed a rapid industrial and commercial development brought about by a combination of fortunate circumstances and wise policy. Never did a sovereign ascend a throne amid greater difficulties: dangerous political and religious divisions, social discontent, and an army of paupers. Elizabeth, however, managed to steer through these difficulties with admirable skill and diplomacy, keeping the various political, religious, and social factions under her control and, most of all, giving the country almost uninterrupted peace throughout her long reign. Under such conditions agriculture, manufactures, and commerce were bound to thrive, but a series of other

fortunate circumstances accelerated this development. For one thing, the power of Spain declined during this reign, and English sea captains and smugglers were not slow in gathering the fruits of this decadence. In the New World especially, England profited by the semipirical expeditions of Drake, Hawkins, Frobisher, Cavendish, Davis, and Raleigh. Their voyages and those of numberless privateers increased England's wealth and opened the way for a more regular commerce with America. Bristol fishermen, profiting by Tudor bounties and Tudor laws designed to increase the consumption of fish,¹ began to compete quite actively with other Europeans in the cod fisheries of Newfoundland; by the middle of Elizabeth's reign as many as fifty English ships were making annual voyages to the Grand Banks. Other branches of trade were also opened with the Spanish American colonies. Unfortunately, Sir John Hawkins set an example in African slave trading that was followed all too readily by other Englishmen; but, iniquitous as was the traffic, it helped very greatly to increase England's wealth.

These early voyages to America stimulated many expeditions in other directions, and Elizabeth encouraged them by depriving foreign merchants of trading privileges in English ports and by granting monopolies to native merchants. English merchants now began to visit quite regularly the coast of Guinea for gold dust and ivory as well as slaves, thus undermining to a certain extent the trade of the Portuguese. The English also began to rival the Portuguese and others in the polar whale fisheries. Of greater import, however, were certain other ventures. Already an attempt had been made by the Willoughby expedition (1553) to find a northeast passage to the land of spices.

¹ For example, the law requiring all Englishmen to eat fish two days each week the whole year.

The expedition failed in its immediate object, but Chancellor, the commander of one of the ships, reached Archangel, where he took sledges to Moscow and obtained from Ivan IV permission for the English to trade freely in Russia. Thus was opened to the English the great market of Moscow, whither came, by way of the Volga and the eastern plains, the blue fox, emine, and sable furs of northern Asia, the hemp, tallow, flax, cordage, tar, pitch, timber, skins, furs, and leather from various parts of Russia, and the products of central Asia. The Russian Company was organized in 1554 expressly for the purpose of carrying on this new trade, and during the rule of Elizabeth it became very active. A few years after its formation, Anthony Jenkinson, one of its leading directors, sailed down the Volga, passed through Astrakhan, and finally reached Bokhara. On his return he recommended that the company should not open this route on account of its length and the many obstacles to traffic along it; but the failure of this effort to establish direct overland trade with the Orient did not stop English trade with Russia, for, in spite of Dutch and Italian rivalry, England continued to make profitable exchanges there. The prosperity of Archangel, to be sure, was ephemeral, because the route from Russia to the West by way of the German markets was safer and more direct, but what England lost by the decline of Archangel was compensated for by pouring her goods into the German markets in exchange for the products of Russia, Germany, and the Orient. The rapid growth about this time of such English towns as Hull and Boston was due chiefly to the profits derived from this source. Another trading company that prospered during Elizabeth's reign was the Levant Company founded in 1581. This company exported considerable quantities of English cloths and metals to Turkey, Syria, and Asia Minor, and imported cotton, mohair, drugs, currants, and coffee. It



ONE OF THE SPANISH "SILVER FLEET"

was reorganized in 1605, and lasted until the middle of the nineteenth century.

Another fortunate circumstance for English commerce during the reign of Elizabeth was the decay of Antwerp. Although Amsterdam inherited a large part of Antwerp's trade, London also secured a share. Stimulated by Elizabeth's liberal encouragement, Flemish merchants flocked across the Channel and helped to swell the trade of London. But England profited even more by the immigration of foreign manufacturers and workmen than by that of foreign merchants. Elizabeth sagaciously encouraged such immigration, and throughout her reign there was a steady influx of skilled workmen who fled from the civil and religious persecutions in Germany, France, and the Netherlands. These foreign artisans settled in Kent, Norfolk, and other eastern counties, and introduced or improved the manufacture of woollens, lace, hats, clocks, cutlery, and pottery. Manufactures during this reign were also taking root in western and northern England; western broadcloths, Manchester cottons and fizes, York coverlets, and Halifax cloth now began to figure in commerce.

During Elizabeth's reign the small farmers and farm laborers recovered somewhat from the bad economic policy of Henry VIII and his immediate successors, and English agriculture made quite substantial progress. This agricultural improvement was greatly favored by the prolonged peace, the restoration of the currency, the increase in the population, and the immigration of continental farmers. More capital was applied to the land, the breeds of horses and cattle were improved, fertilizers were used more intelligently, and new vegetables like hops, carrots, celery, and cabbage were introduced. The growth of woollen manufactures promoted sheep farming, not only among the great landowners but also among the middle-class farmers.

141. The progress made in agriculture, manufactures, and commerce during the reign of Elizabeth was attended by a marked improvement in the standard of living, which in turn stimulated manufactures and commerce. The queen's example was contagious, and encouraged showy dress, finer architecture, magnificent furnishings, and table luxuries, not only among the nobility but among the wealthy merchants. There was also a higher average standard among the middle and lower classes. Brick and stone houses replaced the previous wooden or wattled houses among all but the poorest classes. Chimneys and glass windows greatly improved the average dwelling. Carpets took the place of the former filthy rushes on the floor. "Pillows and cushions were found in all decent houses, and the quantity of carved woodwork of this period shows that men cared for something more than mere utility in their surroundings."

142. There was also a great improvement in food and sanitary conditions, which resulted in better average health, a lower death rate, and a decided increase in the population. The population of England at the time of the Domesday Book had been less than two millions; at the close of Edward III's rule it was still about two and one quarter millions; by the end of Elizabeth's rule it had increased to about five millions.

143. Position of England at the close of the sixteenth century. Thus, as we near the close of the sixteenth century, we find great changes in the relative industrial and commercial positions of England and other countries. The destruction of the Invincible Armada marked the end of the maritime and commercial supremacy of Spain; Portugal had been ruined by her reunion with Spain and other causes; Lisbon and Cadiz had even been pillaged by English squadrons. England, Holland, and France stood

ready to take advantage of these changes; the sovereignty of the seas during the seventeenth century was to be disputed by these three powers of northwestern Europe.

144. The cardinal fact in the history of Germany during the first three centuries of the Modern Period, as well as during the Middle Age, was the complete political disunion existing there. During the Middle Age one fundamental cause for this disunion was the elective nature of the imperial office, but the political situation was not much improved in this respect, when, early in the fifteenth century, the empire became practically hereditary in the house of Hapsburg. This house was too much devoted to its dynastic interests and acquisitions of territory to do anything for German unity. So Germany was given over for several centuries longer to the conflict of jarring interests among several hundred petty princes and nobles. The free cities were decidedly the most progressive element in German political life; but as they were invariably opposed in interest to the nobles and princes, they only proved another hindrance to German unity. The Reformation made the situation still worse, for it divided Germany into two hostile camps. The religious dividing line corresponded generally to the geographical division of the country: the southern states remained for the most part Catholic, while the northern states, except the "bishop's row," adopted the Reformation. The tortuous policy of Charles V only tended to keep the two parties unreconciled and unsubdued. The Religious Peace of Augsburg in 1555, which was intended as a final settlement of the religious question, was far from successful. The underlying principle of this peace, which left the settlement of the religion of each state to the caprice of its ruler, doomed the measure to utter failure, as it did not in the least degree consider the interests and desires of the

people. Thus Germany was left a prey to a long and bitter struggle between the Catholic and Protestant parties, which culminated in the terrible Thirty Years' War, and this proved a most serious obstacle in the way of German industrial and commercial development.

145. The decline of the Hanseatic League was also a serious blow to German commerce and industry. When this league lost its monopoly in the commerce of the North, other countries, chiefly Holland and England, began to profit greatly at the expense of Germany. Some German towns, however, and some Prussian towns which were to become German towns, received a large share of the Hansa's trade.

146. Southern Germany. While northern Germany felt the effects of the decline of the Hansa more than southern Germany, the latter section also suffered from the same cause. Another important factor, however, entered into the decline of southern Germany during the sixteenth century. The towns in that section had previously thrived upon the trade coming from the Orient to the Italian cities and passing thence over the Alps, down the Rhine, and elsewhere throughout southern Germany. When most of this trade was diverted to Lisbon by the discovery of the cape route, the South German towns suffered with the Italian cities. The rich houses of Augsburg and Nurnberg tried for some time to divert a portion of the Portuguese commerce into Germany by way of Italy, but their efforts were not very successful. Erfurt, Brunswick, Koln, Aix-la-Chapelle, and many other towns that had been commercially important now became relatively insignificant. The commercial losses of some of these towns, however, were partially compensated for by their extensive banking business. Special local circumstances also retarded or prevented the decay of some towns. Frankfurt-am-Main, for

example, with her great fair, became for a time the most important inland town in Germany; Leipzig also continued to derive great profits from her fair, and became the greatest fur market in Europe.

147. Other causes for German decline. Germany also suffered much during the sixteenth century from the ravages of war. The Peasants' Revolt (1525) brought much plundering and produced very destructive effects upon industry and commerce. There were continual civil and religious conflicts, all of which were disastrous. The influx of precious metals also did particular harm to Germany by lowering the prices of the metals mined in her mountains, as well as by the derangement of her industry and commerce through the general rise in prices. Finally, the Peace of Augsburg caused many of Germany's best workmen to emigrate to other countries, thus weakening her industrial strength.

148. In the midst of this general decline, however, there were some encouraging signs. Beginning with the reign of Charles V, the imperial court became much more luxurious than before, and this tendency spread among the nobility and wealthy burghers. Even the cold and ascetic North thawed out somewhat and began to indulge in luxuries. The new demands stimulated German commerce and industry. Furthermore, some German industries retained their former importance in spite of all adverse circumstances; as, for example, the manufactures of weapons, hardware, and linen. Cotton cloth was still made on quite a large scale in southern Germany, but the finer varieties were rapidly being superseded by Flemish and French cottons. Hamburg and Bremen, commanding as they did the mouths of the Elbe and the Weser, seemed to thrive upon the general misfortunes of Germany; they became the great outlets for her exports and the inlets for imports. Much German

merchandise which had formerly found an outlet at Venice and Genoa, or down the Danube, now left the country from these great northern ports. Again, while many portions of Germany were suffering from the emigration of their skilled workmen, other portions were deriving a reciprocal advantage from the immigration of foreign refugees, especially the Protestants from France and Flanders. Saxony, in particular, under the wise policy of her rulers, profited by this foreign labor in her vineyards, mines, and linen and woolen manufactories. During the sixteenth century the North German merchants also had a part of the trade with Poland and Hungary. The characteristic products of those countries, and for a time also considerable quantities of oriental goods, were shipped from Breslau, Krakow, and Lemberg to Danzig, Königsberg, and Elbing, and carried thence by German, Dutch, and English traders.

149. The Scandinavian countries, as well as Holland, England, and France, profited by the decline of Spain, Portugal, and the Hansa. Sweden, in 1523, broke loose from the Union of Kalmar and made considerable industrial and commercial progress during the remainder of the century; but it was not until the seventeenth century that she was fairly started on her meteoric career of prosperity. Denmark, which still included Norway, made even greater progress than Sweden during the sixteenth century. Her characteristic industries — agriculture, cattle rearing, and dairy farming — were being well developed, and her foreign trade was extended.

150. Turning southward again, we find a sadly altered condition in Italy. The gradual occupation of the Levantine countries by the Turks had nearly ruined the trade of Bagdad. This, together with the capture of Constantinople by the same fierce people, had dried up the chief sources of the commerce of the Italian cities. The

discovery of the cape route diverted much of their trade to Lisbon, although, as we have seen, they made several attempts to check the growth of their new rivals, the Portuguese. These causes alone were quite sufficient to ruin the Italian cities, but the irony of fate brought still further calamities. In 1508 the League of Cambrai was formed against Venice by France, Spain, the emperor, and the pope, purely for plundering purposes. Then followed the numerous wars of foreign kings in Italy, who went there to fight out their endless quarrels. These wars resulted in the political overthrow of many of the old Italian republics, and completed the commercial and industrial ruin of nearly all of them. Venice, however, preserved her separate existence, and rendered an important service to Christendom during the sixteenth century by bravely continuing her great struggle against the Turks. In 1571 she participated in the signal victory over them at Lepanto, but by the close of the century her power, wealth, and commerce were greatly reduced, and she was a very different Venice from that of the thirteenth and fourteenth centuries.

151. The Netherlands came under the control of Spain as a result of three famous marriages that were destined to revolutionize the commercial, as well as the political, development of Europe. The marriage of Ferdinand and Isabella established Spanish unity; the marriage of Mary of Burgundy to Maximilian brought the Burgundian dominions, including the Netherlands, under the control of Austria; the marriage of Joanna, daughter of the first union, to Philip the Handsome, son of the second, united all the Austrian and Spanish territories, including those in the New World. The son of the third union ultimately inherited all these territories and, in 1519, became the Emperor Charles V.

152. None of the vast dominions thus suddenly brought together under one ruler were more important than, and none so rich and prosperous as, the Netherlands. We have seen what remarkable progress in civilization had been made there during the Middle Age. At the time of the accession of Charles V the Netherlands contained a busy population of about three millions, many rich cities and towns which thrived upon their prosperous manufactures and commerce, and a splendid system of agriculture.

153. Antwerp had already become the greatest commercial center of the country, as a result of a series of fortunate circumstances. In the first place she had inherited the trade of Bruges, secondly, the discovery of America had opened to her a large part of the carrying trade between Europe and the New World; thirdly, the discovery of the cape route, owing to the indifference of the Portuguese, gave the merchants of Antwerp the profits derived from distributing East Indian products throughout Europe after they were brought as far as Lisbon by the Portuguese.

154. For a time also, Antwerp and the other cities of the Netherlands continued to prosper and grow rapidly under Spanish rule. Charles V, born as he was in the Netherlands, always remained somewhat attached to his native country. While he hated the new religious ideas that were growing up there as a result of the Reformation, and gave some terrible exhibitions of this hatred, especially towards the close of his reign, he nevertheless protected and encouraged the commerce of his wealthy subjects in those provinces throughout most of his reign. Antwerp, in particular, continued to profit by the above-named fortunate circumstances, and now also derived great commercial advantages from the union of so many territories under Charles V, from the protection given by him to her commerce, and from several other favoring circumstances.

English, French, and German artisans fled thither to escape religious persecution. Great financiers and men of wealth settled there, bringing fresh capital and increased facilities for trade and manufactures; for example, the Fuggers and Welsers of Augsburg, and the Spinozas of Genoa. All the leading European banking houses established branches there: the Hochstetter of Augsburg, the Pentinger of Ratisbon, the Gualterotti and the Bonvisi of Milan, and the Peruzzi of Florence. The Antwerp stock exchange became the greatest center of financial operations in Europe. Her industries were numerous and flourishing; her tanyards and sugar refineries were the largest in Europe; her glassware rivaled that of Venice; her arms of every kind, her silver, gold, bronze, and other metal work were superior to those produced elsewhere; her woolen, linen, tapestry, fustian, silk, and carpet manufactures were very prosperous. The commerce of the city corresponded to her extensive manufactures. In the first place, she was the great outlet for all the products of the Netherlands: the woollens, linens, carpets, lace, leather, hardware, and other manufactures of her own artisans and those of Ghent, Brussels, Mechlin, Louvain, Courtrai, and other cities, as well as the vast quantities of fish and other products from the northern Netherlands. England sent thither, for distribution to various countries, her iron, lead, beer, cheese, furs, sheep, rabbit skins, and woollens, Scotland, her leather, wool, coarse cloths, and inferior pearls; Ireland, her hides, leather, and coarse woollens; Germany, her silver, quicksilver, copper, hardware, wool, glass, fustian, timber, furniture, wines, madder and other dyestuffs; the Scandinavian countries, their iron, copper, saltpeter, sulphur, potash, vitriol, amber, timber, tar, pitch, wool, flax, fish, honey, wax, hides, and leather. From France came salt, wines, copperas, wood, paper, gilded wares, silks, and other fine

stuffs ; from Italy, raw and manufactured silk, gold and silver ornaments, embroidered brocades, Parmesan cheese, Lombardy rice, Levantine products (sponges, fruits, drugs, etc.), and Indian products (spices, sugar, cotton, and precious stones); from Spain, Portugal, and the Canaries, wool, leather, raw and manufactured silks, velvets, iron, soap, wine, vinegar, oil, and large quantities of East Indian products ; from the New World, either directly or through Spanish ports, vast quantities of silver, gold, fine woods from Brazil, and Peruvian bark ; from Africa, ivory and gold dust. It has been estimated that the annual volume of Antwerp's trade in her prime was about half a billion crowns.

155. Antwerp and the other cities of the Netherlands fared very differently under Philip II (1556-1598). His harsh and inflexible policy struck at both the consciences and the material interests of the Netherlands. He spent four years in the Netherlands immediately after his coronation, busily devising every conceivable method for rooting out the heresies of his subjects, and then left the fated provinces in charge of his half-sister Margaret, Duchess of Parma. This regent carried on the persecution of the Protestants with renewed vigor, which soon drove them to desperation. Taking up the national cry "Long live the Beggars!" in recognition of the epithet that had been contemptuously hurled against them by the Spaniards, the infuriated people broke out into wholesale riots. It is unnecessary to describe here the reign of terror that followed under various Spanish governors. It is chiefly important to note the terribly destructive effects of Spanish misrule upon the industry and commerce of the Netherlands, especially the southern provinces. Many thousands of the best citizens were killed and over one hundred thousand were driven into exile, vast amounts of property were confiscated or destroyed, many

oppressive taxes were levied, trade with the Iberian peninsula was prohibited, and Antwerp, Harlem, Leyden, and other cities were sacked. The net result of Philip's rule, therefore, was the commercial and industrial ruin of the cities of the southern Netherlands. Antwerp in particular was completely ruined, her commerce was gone, her busy streets were soon grass-grown and deserted.

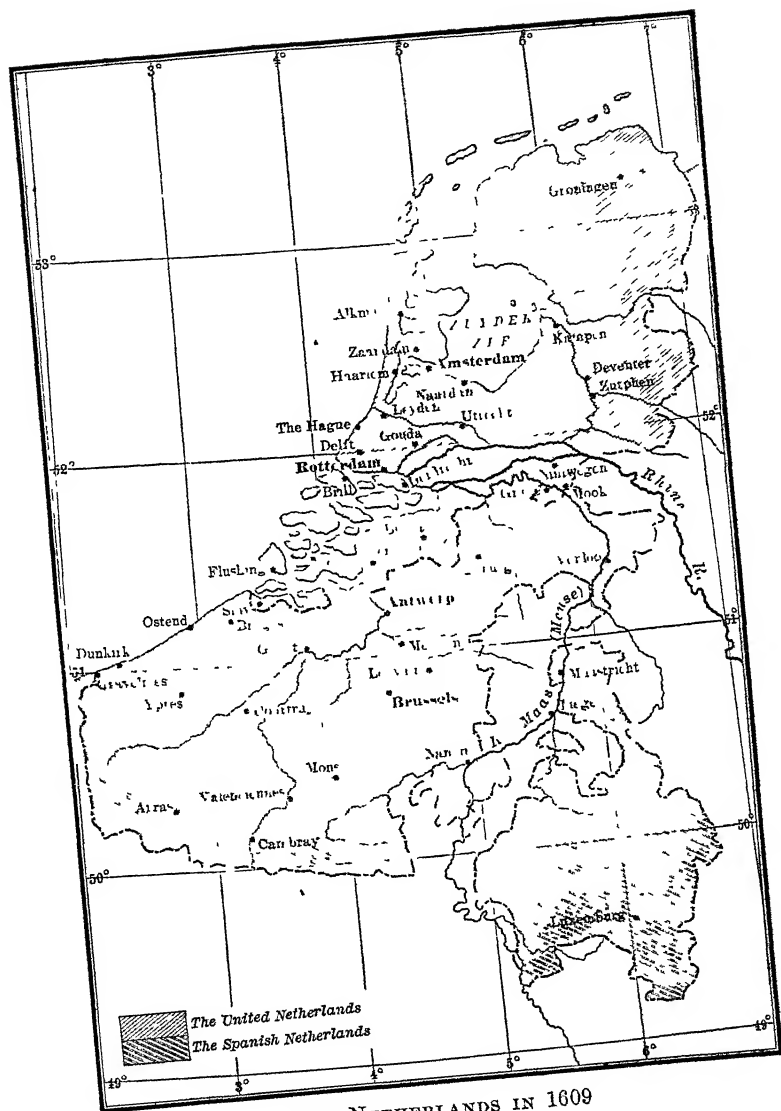
156. While Spanish rule thus brought ruin to the southern Netherlands, it was the very impulse which brought forth a free and united Holland. The star of commercial empire which had hovered so gracefully over Antwerp moved but a short distance in the firmament and rested for a time upon the more prosperous neighboring city of Amsterdam, whose commercial career will be described in the next chapter.

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CHAPTER XVIII

THE DUTCH ASCENDENCY

157. The rapid material development of Holland during the war for independence was one of the most remarkable characteristics of that long and bitter struggle. During the very period that the Dutch were contending with Spain, then the most powerful nation in the world, they were steadily increasing in population and wealth, and their industries and trade were expanding at an astonishing rate. At the beginning of the war, the northern provinces of the Netherlands were far less populous and prosperous than the southern provinces, which remained loyal to Spain; at the close, the situation was completely reversed. Antwerp, the great commercial center of the Netherlands at the beginning of the reign of Philip II, was soon ruined, and the fortune of Antwerp was only typical of the general condition of the southern provinces at the end of the war. Much of their wealth was either destroyed by the ravages of war and Spanish misrule or was transported to Holland, England, and other countries; while their most skillful artisans and most enterprising traders emigrated to the same countries. On the other hand, by the close of the war, in spite of all its losses and ravages, the population of the northern provinces had increased to nearly four millions, which was considerably greater than that of both the northern and southern provinces at the beginning of the struggle. The northern provinces had already made some progress in manufacturing, especially in shipbuilding;



THE NETHERLANDS IN 1609

but their chief industries were still cattle raising, dairy farming, and the fisheries. By the close of the struggle with Spain, however, the northern, or Dutch, provinces were exporting not only butter, cheese, and salted fish, but large quantities of manufactured goods. More vessels were built in the docks of Holland at this time than in all the other shipyards of Europe combined. The greatest expansion, however, occurred in their foreign commerce. The Dutch sailors had become the most skillful, enterprising, and daring that navigated the seas, and the Dutch merchants had extended their commerce into nearly every part of the known world. Corresponding to this material development was the equally remarkable intellectual progress made by the Dutch during this period. Rarely would one find in Holland at this time a person who could not read and write; colleges and universities existed in all the leading cities; some of the most distinguished scholars in Europe came from the Dutch provinces.

158. The reasons for this development are not hard to find. The war for independence was bound to produce a great exaltation of mind and purpose among all classes of the Dutch people, and this found a natural vent in larger and more enterprising industrial and commercial undertakings. Every military advantage was followed by some new commercial and industrial venture; every military loss developed greater hardihood and daring. This war was the very means by which the "beggars of the sea," already brave, venturesome, and skillful, gained new maritime experience and thus came to excel all other navigators. These "beggars" eagerly ventured into the most remote waters in search of helpless or poorly defended Spanish galleons laden with gold and silver from the New World or the rich products of the East. Furthermore, when Philip II, in prosecuting the war, prohibited all

trade between the Netherlands and the Iberian peninsula, he really rendered the Dutch merchants an inestimable service. Whereas, before this, they had been content to get their eastern products indirectly from Lisbon, they were now compelled to go directly to the East Indies for them. At the same time, the dependence of the Spaniards upon the Netherlands for much of their food and clothing made it comparatively easy for the Dutch to carry on an extensive smuggling trade with them. All along the coasts of the Iberian peninsula were found many people who were quite willing to help the Dutch draw their goods ashore from their smuggling vessels. On the other hand, be it said, there were not lacking Dutchmen, who, in their eagerness for driving a good bargain, so far overcame their patriotism as to render material assistance to their enemies by supplying them illegally with arms, ammunition, and other contraband of war. Throughout the war, therefore, many hundreds of Dutch vessels were busily engaged in illicit trade of various kinds with all parts of the Spanish dominions, and a large part of the enormous increase of Holland's wealth during this war is attributable to the constant activity of her army of smugglers.

There were other very evident causes for the rapid expansion of Dutch industry and commerce during the war for independence. Amsterdam received an extraordinary impulse from the immigrants and capital which came there from the fated city of Antwerp. According to contemporaries this rising commercial metropolis in the northern provinces had to be enlarged several times to accommodate the influx of immigrants. England, also, for a time rendered the Dutch great services. Not only did Elizabeth help them directly with money and finally with troops and ships, but indirectly she also aided the growth of Dutch trade. She developed the military marine of England rather

than the merchant marine, and thus left the carrying trade of the world for the Dutch to seize. For a time after her death the many troubles in England enabled the Dutch merchants to profit by that queen's naval victories over the Spaniards far more than the English merchants themselves. Likewise the reaction in France after the death of Henry IV (1610) enabled the Dutch merchants for a time to profit more than the French merchants by that monarch's victories over the Spaniards on the continent. A little later the Dutch were even assured the protection of the great French statesman and diplomatist, Richelieu. In short, in all parts of the world, during the struggle with Spain, the sea was left open for a clean sweep on the part of the Dutch, who took advantage of their boundless opportunities with great success.

159. The agricultural resources of Holland were, as already stated, one of the chief bases of her industrial life up to the beginning of the war for independence. Gradually, by an extensive system of dikes and canals, the Dutch had transformed an otherwise useless waste of swamps and barren sands into one vast garden of unsurpassed fertility. Here they produced large quantities of vegetables, cattle, butter, cheese, fruits, and flowers, which were a source of considerable wealth. During the wars with Spain and for some time thereafter the Dutch continued to develop their agriculture along with their manufactures, fisheries, and commerce; but the wars with Louis XIV made terrible inroads upon Dutch agriculture. Although there was an agricultural revival in Holland after the wars with Louis XIV, the Dutch gradually became more and more dependent upon other countries for their supply of raw materials, and even for a large part of their food, drawing these articles chiefly from the Spanish Netherlands, Germany, Scandinavia, Poland, Bohemia, Hungary, and Russia, all of which countries were accessible by river or sea routes.

160. The fisheries. For several centuries before the war for independence the Dutch had engaged quite extensively in the fisheries, this being in fact the chief industry of some provinces. Herring in particular were found in great abundance in many of the shoals of the Baltic and its islands, and at a very early date the fishermen of Zeeland and Friesland had learned the art of curing and salting herring and cod for export. Gradually the Dutch extended their fishing operations in all directions,—farther eastward along the Baltic, up the Norwegian coasts, to England, Scotland, and even farther. By the middle of the sixteenth century the annual haul was between eighty and ninety thousand tons, the value of which was about \$3,500,000. The industry was by this time important enough to require the protection of nine war ships and to be made the subject of treaty between the emperor, Charles V, and James V of Scotland. The Dutch did not neglect the fisheries during their wars with Spain. By the beginning of the seventeenth century the value of the annual haul had increased to \$10,000,000. In 1605 Sir Walter Raleigh estimated that three thousand Dutch fishing boats, with fifty thousand fishermen, came over to the English and Irish fishing grounds; the total number of Dutch vessels and men engaged in all the fisheries of the Baltic and North seas was undoubtedly several times as large. Towards the close of the seventeenth century the English Board of Trade estimated the annual value of the Dutch fishing industry at about \$15,000,000.

In the course of time jealousies arose between the English and the Dutch fishermen. James I and Charles I therefore revoked the licenses for fishing in English waters, which the Dutch had enjoyed for several centuries. Partly in order to maintain Dutch rights to the North Sea fisheries, Grotius, in 1609, published his famous book, *Mare Liberum* (Open Sea). To this book the Englishman,

Selden, replied in his *Mare Clausum* (Closed Sea). The literary contest, however, did not settle the question. In spite of English restrictions the Dutch continued to fish in the disputed waters, and their fishing smacks were regularly accompanied by powerful naval convoys. In 1652 Admiral Blake defeated the Dutch convoy and captured many of the fishing boats. The war between England and Holland that followed (1652-1654) did great damage to the Dutch fishing industry. Gradually other rivals than England appeared, particularly Sweden and France, and consequently the Dutch fisheries declined rapidly during the eighteenth century.

About the middle of the sixteenth century the Dutch also began to push into the polar seas in search of whale fisheries, after having learned from the Basques the art of catching whales and boiling down the blubber. At first whales were found in large numbers around Spitzbergen, but about the middle of the seventeenth century the Dutch abandoned this whaling ground and went chiefly to Davis Strait and Greenland. In spite of all risks and expenses the Dutch whaling industry was for a long time very lucrative. This industry was supplemented by trade with the natives in bear and fox skins, which were readily obtained in exchange for hatchets, knives, copper kettles, and other cheap articles. In 1614 the Dutch government granted a monopoly of the whaling industry to a private corporation, but in 1642 it was thrown open to general competition.

161. Manufactures had been developed to some extent in various Dutch cities before the war for independence, but little more than enough for home consumption had been produced. The struggle with Spain, however, threw the Dutch more upon their own resources, and consequently the old manufactures were then developed more extensively

and new ones started. Even the more northerly provinces of Groningen, Friesland, and Overijssel were filled with various textile manufactories. To the southwest, Leyden became the greatest industrial, as well as the most learned city of Holland; her numerous factories were the center of the woollen industry of the country. Harlem became noted for her extensive bleaching yards and for numerous other industries; Delft and Gouda for their magnificent china ware; Utrecht for her velvets; Amsterdam for her marble works, oil mills, sawmills, soap factories, sugar refineries, diamond cutting, and tanneries. In many cities throughout Holland there were also extensive breweries and distilleries. For some time the Dutch textile industries were the most extensive and prosperous in the world; finer and better fabrics were woven in Holland than elsewhere. This industrial supremacy of Holland continued throughout the seventeenth century and was greatly aided by the influx of French artisans after the revocation of the Edict of Nantes (1685). One of the greatest and most prosperous industries of the Dutch was that of shipbuilding and naval supplies; Zaandam, situated on the narrow arm of the Zuyder Zee, was its greatest center. The Dutch built not only all of their own ships for their vast carrying trade, but also most of the vessels used by many other countries. After the decline of the Lisbon shipyards, those of Zaandam became the greatest in the world, employing many thousand men.

162. The Dutch in the East Indies and the Dutch East India Company. Although great as farmers, fishermen, manufacturers, and shipbuilders, the Dutch were even greater as merchants and bankers. During a large part of the seventeenth century their carrying trade was greater than that of any other nation, and Amsterdam was the commercial and banking center of the world. Their

commercial and financial ascendancy may be studied best in connection with their two great trading companies, the East and West India companies, which we will now consider.

The first important ventures of the Dutch in the direction of the East Indies were made in connection with their celebrated searches for the northeast passage. The idea of finding such a passage seems to have been suggested to the Dutch by the famous Willoughby expedition starting from England in 1553. This expedition did not accomplish its intended purpose, but it did result in opening up a trade with Russia by which the Dutch profited quite as much as the English. When, in 1591, Philip II closed the port of Lisbon against the Dutch, and thus forced them to find a route of their own to the East Indies, the desire to find a northeast passage became much stronger, and three successive attempts were accordingly made, in the years 1594, 1595, and 1596. All these attempts were of course foiled by the severity of the northern climate, and their only tangible results were the discovery of Spitzbergen and Nova Zembla, which were utilized in developing the whale fisheries. But at the very moment that the Dutch explorers were icebound in these northern waters, another Dutchman, Cornelius Houtman, was imprisoned for debt in Lisbon. As this man had made the voyage to the East Indies several times while engaged in the Portuguese service, it was very desirable to obtain his release; this was finally accomplished with considerable difficulty by a newly organized company of Dutch traders, known as the Company for Foreign Parts. This company at once sent Houtman with a fleet of four vessels to open a direct trade between Holland and the East Indies. This explorer landed at Madagascar, India, Java, and several other islands of the East Indies, where he encountered many difficulties with the Portuguese and natives. Although he lost two of his ships and two

thirds of his men, he returned with glowing reports of the resources of these islands. The Amsterdam merchants therefore sent out another fleet, of eight vessels, in 1598, under the command of Admiral Van Neck, for the purpose of founding a permanent settlement at Java, which they intended to use as a basis for trade with India, China, Japan, and the East India islands. By alternate diplomacy and fighting with the natives, the Dutch managed to load four vessels with pepper, cloves, and valuable cloths in exchange for inexpensive Dutch wares and trinkets. These four vessels were then sent home, while the admiral sailed on to the Moluccas, where, with the aid of the natives, he succeeded in expelling the Portuguese from some of their settlements. After making favorable commercial treaties with the native princes and opening an extensive trade with Java and other islands, Admiral Van Neck returned to Amsterdam covered with glory and laden with riches.

The success of these first ventures naturally led other Dutch companies to fit out similar expeditions. Competition soon became so intense, however, and the various mercantile interests so conflicting, that it was decided to merge all the smaller companies into one large company. Accordingly, in 1602, the great Dutch East India Company was chartered by the states-general for a period of twenty-one years. The various companies thus combined represented a joint capital of about \$2,500,000. The charter provided for a governor general and a council, in which each of the cities subscribing to the capital stock had representatives chosen indirectly from a list selected by the chief stockholders of each city. The council was invested with very extensive powers, it could declare war or make peace with eastern princes, erect forts, establish garrisons, and appoint administrative and judicial officers. The states-general, however, reserved the right of assuming future control of

the company, received a share of the profits, and required fees for each renewal of the charter, which fees were frequently quite heavy.

When the Dutch East India Company began operations in the East it found formidable rivals, not only in the Portuguese, but also in the English and the pirates of many nationalities who swarmed in this region. The depredations of the pirates were soon checked, although never wholly stopped. The struggles with the Portuguese were numerous and invariably fierce and bloody, but they were finally driven from nearly all of their eastern possessions except Macao: in 1615, from Amboyna; in 1651, from Malacca; in 1658, from Ceylon; in 1660, from the Celebes. For a time also the Dutch were triumphant over the English in the East, although the resistance of the latter was very stubborn. Gradually the Dutch obtained control of the Malay peninsula, most of the East India islands, and Formosa, whence they carried on an extensive trade with Siam, Indo-China, China, Japan, and the Philippines. In 1662 the Dutch were expelled from Formosa by an army of Chinese headed by Coxinga, who did this in revenge for the execution of his father as a pirate. After this, Java and the Moluccas remained the chief centers of Dutch trade in the East. Batavia, the "Pearl of the East," founded in 1619, became the capital of the Dutch colonial empire, where the governor general of the East India Company resided and controlled the eight vice governors established at Malacca, Macassar, Ternate, Amboyna, Banda, Coromandel, the Celebes, and the Cape of Good Hope. The profits derived from this trade in the East were enormous, especially the trade in pepper, nutmegs, cloves, sugar, rice, cotton, silks, fine woods, and precious stones. During the century beginning in 1620, the annual dividends of the East India Company were generally from twelve and a

half per cent to twenty per cent, and sometimes rose to fifty per cent, sixty per cent, and even seventy-five per cent. The capital stock of the company rose to about six hundred per cent and remained there for some time.

The many dangers from pirates, rivals, and other sources led the Dutch, like all great maritime powers that preceded them, to organize their trade very thoroughly. All trade was carried on by regular fleets, attended by powerful naval convoys, which left Amsterdam for Batavia three times annually, — in spring, autumn, and winter. These fleets usually carried bullion from the New World and Dutch manufactures suited to eastern wants, including cured herring, in return for which they obtained the many valuable products of the East. All this commerce was strictly and jealously monopolized by the company. Like the Spaniards, the Dutch, in order to defend their commercial monopoly, punished by death any one who made known the routes of their navigators. After securing maps of their islands they carefully guarded against their publication. Any captain showing these maps to strangers, even in dangerous regions, was liable to punishment with the rod, branding, and banishment. Pilots were not even allowed to strange ships in distress. On the other hand, the Dutch did not use their colonies quite so much in the mere spirit of exploitation as the Spaniards and Portuguese had done, but generally fostered the native industries. Instead of forcing the natives to buy what they did not want, they stimulated among them a desire for European goods, and this desire encouraged native production as a means of securing the desired commodities. Yet the Dutch came far short of developing an ideal colonial policy; their colonies were always subjected to extortions, and were regarded too much as mere feeders and places for quickly amassing fortunes to be taken back to the mother country and spent there.

163. The Dutch West India Company, like the East India Company, was an outgrowth of numerous previous enterprises on the part of individuals and smaller companies. Before they revolted from Spain, the Dutch had been allowed certain commercial privileges in the New World and from the first had enjoyed a portion of the trade with America. Under the protection of Charles V various Dutch companies had traded with the West Indies and parts of the western coast of Africa. Spanish governors in the New World were frequently glad to admit Dutch vessels, because they thus secured useful commodities cheaper than those furnished by the home government. An extensive smuggling trade was thus developed even before the Dutch revolted from Spain. By 1579, the year of the Union of Utrecht, one hundred and twenty ships from the Netherlands were engaged in the West India trade, and this trade was extended very rapidly during and after the war for independence, as a means both of profit and of attack on the power of Spain. One of the first Dutch settlements in America was that made in 1590 on the Demerara River in Guiana. A little later, in 1609, Henry Hudson, an agent of the Dutch East India Company, while seeking a north-west passage to the East Indies, discovered the river which now bears his name. This new region was promptly claimed by the Dutch, and in 1610 some enterprising Amsterdam merchants fitted out a ship to trade with the natives. This voyage was so profitable that in 1614 a fort was erected at New Amsterdam, and a little later forts Orange, Hartford, Good Hope, and others were built in this region. In the meantime, in another part of the world, the Dutch were extending their operations. The island of Principe, in the Gulf of Guinea, was seized from the Portuguese, and in 1612 a settlement was made on the Gold Coast. Thus far the various Dutch enterprises in the New World and

western Africa had been carried on by individuals or small companies. As they had been attended with a good many risks and dangers it was found advantageous, in 1621, to merge them into the great West India Company. The charter of this company granted exclusive trading privileges over about two thirds of the globe for a period of twenty-four years, and endowed it with powers practically the same as those enjoyed by the East India Company.

At first the new company traded chiefly with New Amsterdam, San Domingo, and Cuba, but it soon began an aggressive campaign against all rivals in the New World. In 1623 Bahia was seized from the Portuguese, and a little later Pernambuco was also captured. Bahia was recovered for a few years by the Portuguese, but in 1631 a Dutch fleet of sixty vessels recaptured the place. By 1643 the company had conquered about one half of the Portuguese territories in the New World. Dutch ascendancy in Brazil, however, was short-lived, misgovernment, neglect, lack of military discipline, and enervating practices among the planters soon weakened the Brazilian provinces. In 1654, during the war with England, the Dutch colonists were obliged to surrender their last Brazilian fortress to a Portuguese rebel who was secretly aided by the Portuguese government. In 1660 Holland renounced all claim to this territory, although Dutch merchants continued for some time to share with England nearly all of the carrying trade between Brazil and the rest of the world.

In the settlements along the Hudson and the neighboring coasts the West India Company made rapid progress for a time, only to have this territory torn from them by their great rivals, the English. An active fur trade was carried on with considerable profit to the company. The splendid harbor at the mouth of the Hudson was used as a refuge for the fleets which protected the Newfoundland

fisheries and also for those which preyed on Spanish vessels in the New World. But rivals soon appeared in the region of the Hudson. The Swedes erected numerous forts, and between 1620 and 1640 the English crowded rapidly into New England. Naturally there were many contests between these rivals, and the Dutch seem to have made the mistake of scattering their strength instead of centering it upon the strategic key to this region, viz., the mouth of the Hudson. For a time, however, the Dutch and Swedes successfully made common cause against the English settlers, but in 1654, during the war between England and Holland, the Swedes turned against and overpowered their former allies. The Dutch, however, returned in triumph the following year, drove out the Swedes, and remained supreme in the region of the Hudson until 1664, when New Netherlands was taken by the English. Although New York was recaptured by the Dutch in 1673, their occupation was very brief and New York was soon ceded to England.

While Brazil and New York were thus lost, the Dutch West India Company succeeded in paying very high dividends to its stockholders, though by somewhat questionable methods. Its chief profits were derived from the African slave trade, smuggling, privateering, and piracy, rather than true commercial enterprise. In 1630 the Portuguese were driven away from the coast of Guinea, and the Dutch took possession of the settlements at Angola, Arguin, and Gorée. From that time on, the company made considerable profit from the gold found on this coast, but much greater profits from the trade in African slaves. In 1634 Curaçao, a very small, unfertile, and rock-begirt island lying in the Caribbean Sea, about ten miles from the mainland, was captured from the Spaniards. It did not take the Dutch very long to discover the great value of this island, with its secure and easily defended harbors, as a station for

contraband trade. Curaçao, therefore, soon became the great smugglers' den of the New World. Throughout all the wars of the seventeenth and eighteenth centuries, fleets sailed openly from this island laden with contraband goods, and no one can estimate the number of vessels that secretly crept in and out even in the face of watching war vessels. This island was not only used as a basis for a vast smuggling trade but as a refuge for Dutch privateers. During the years 1623-1636 the company fitted out eight hundred privateers, which captured nearly six hundred Spanish and Portuguese merchant ships, including the celebrated "silver fleet" captured in 1628, which, according to Dutch estimates, was laden with treasure worth \$6,000,000. As a result of these various questionable activities the company was able for some time to pay annual dividends ranging from twenty-five to one hundred per cent. These operations were perhaps partly justified by the belligerent conditions then existing, but there can be no doubt that the fabulous profits made in these illegitimate ways tended to unfit the company for more regular commercial enterprises. The Peace of Westphalia (1648), which formally concluded a long period of warfare between the Dutch and Spaniards, placed a check upon Dutch privateering and smuggling. It is not surprising, therefore, that the profits of the company dwindled thereafter very rapidly, and it was hardly to be expected that stockholders who had fattened for so long a time on illegitimate profits would take much interest in the more serious task of developing a regular commerce out of the meager pioneer conditions then existing in the New World. By 1674 the company had become bankrupt, and although a new one was created, it was no more successful than its predecessor in developing a profitable regular trade. Accordingly, in 1734 the states-general decreed freedom of trade with the New

World subject to a two per cent *ad valorem* duty. This decree seriously crippled the new company, and it died a natural death in 1790.

In only one part of the New World did the Dutch succeed in maintaining a permanent foothold, and this was in the most unpromising region exploited by the West India Company, viz., in Guiana. In the unhealthy marshes of that region the patient, sturdy Dutch colonists performed almost the same miracle that their ancestors had already performed in the inhospitable home land. Gradually canals were dug, dikes constructed, and swamps drained; in time the Dutch colonists were rewarded with abundant crops of sugar, coffee, indigo, cotton, tobacco, and cocoa. In 1667, by the Peace of Breda, the English in partial recompense for their seizure of New Amsterdam, surrendered Surinam to the Dutch; therefore, except for the brief period from 1795 to 1802, the Dutch settlements in Guiana remained in Dutch hands, and are still under the control of Holland.

164. Dutch banking and stockjobbing. The asylum afforded in Holland to all political and religious exiles attracted thither not only large numbers of mechanics, artisans, and merchants, but also vast quantities of capital. Thus, together with the large accumulations from home industry and foreign commerce, brought the current rate of interest down to three per cent by the close of the seventeenth century; at the same time it was over eight per cent in England and France. Another fortunate circumstance was the emigration of large numbers of Jews from the south of Europe to Holland. These Jews not only brought considerable capital into the country but, through their connection with Jews in the Orient, were able to aid the Dutch in extending their commercial and banking relations in that direction. As a result of these and other favorable circumstances the Dutch soon became the bankers

of the world, and retained that position far into the eighteenth century. Whenever a foreign government wanted to borrow money for its wars or other undertakings, whenever responsible private corporations and individuals, either native or foreign, wanted to borrow money for vast enterprises, either in the Old or New Worlds, they invariably turned to the banks of Amsterdam for loans. As late as the middle of the eighteenth century the banks of Holland held claims upon foreign debtors amounting to over \$1,000,000,000. But there was another and darker side to Dutch financiering, and that was inordinate speculation. A very good illustration of this is found in the "tulip mania," one of the strangest speculative aberrations known to history. As the Dutch were great horticulturists, and the cultivation of the tulip was an especially favored pursuit, it is not strange that they should carry on a considerable traffic in tulip bulbs and flowers; but it is somewhat surprising in the middle of the seventeenth century to find the whole country going crazy in speculations on the values of various famous bulbs. One variety, called the Viceroy, sold for \$1000; another, *Semper Augustus*, for over \$2000. Speculators began to buy and sell bulbs according to their hypothetical values, and thus the prices continued to soar. In a few weeks one speculator gained \$25,000; fortunes were soon made and lost. Finally the bubble burst and a panic ensued. The extent of the suffering may be judged from the fact that about \$4,000,000 was invested in tulips. The stock exchange of Amsterdam also witnessed many other speculations during the seventeenth and eighteenth centuries, all of which had the usual effect upon stable business operations.

165. Decline of Dutch commerce. The seventeenth century may be said to belong commercially to the Dutch, as the sixteenth century had belonged to the Portuguese and

Spaniards. But during the whole of the eighteenth century the commercial power of Holland declined and at nearly every point gave way to her greatest rivals, the English and French, chiefly the former. Already signs of this decline had appeared in several unsuccessful struggles with these rivals, but the decline became more rapid and serious with the advent of the new century. At the very outset of this century the War of the Spanish Succession crippled Dutch manufactures and commerce. During this war the French merchants stole some profitable trade from the Dutch, but, more to the point, England gained enormously in prestige, in agriculture, manufactures, and commerce, and also made some very important territorial acquisitions. England now began to outstrip the Dutch in the trade with Portugal, Brazil, Russia, Sweden, and Denmark. In like manner England and France now rapidly gained on Holland in the trade with the Mediterranean countries and India. Furthermore, Dutch manufactures were discriminated against in England and France by import duties so high as to be practically prohibitive. To make the situation worse, Holland now felt keenly her scarcity of raw materials more than ever before. Wars and other causes had led to very heavy taxes, decreased the number of laborers, and raised wages, thus injuring her industrial efficiency and power to compete with other manufacturers. Commercial decline inevitably followed industrial decline and the other causes noted. But Holland still retained for a time her financial supremacy, owing to the large amount of capital accumulated during the period of her industrial and commercial ascendancy.

References — *Blok*, III-VI, *Bourne*, Romance, *Day*, Dutch in Java; *Hunter*, India, I, *Motley*, Dutch Republic, *Ibid*, History of the United Netherlands, *Ozley*, Romance, *Rogers*, Story of Holland, *Ibid*, Econ. Interp., *Schantz*, II.

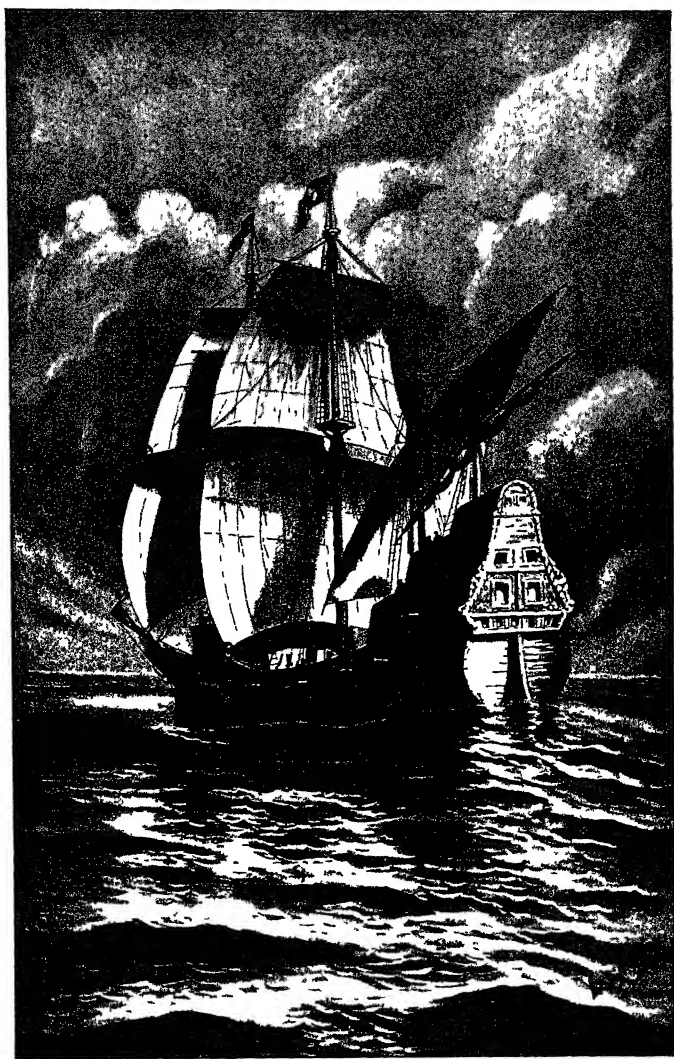
CHAPTER XIX

THE STRUGGLE FOR SUPREMACY BETWEEN ENGLAND AND FRANCE

166. Introduction. In the seventeenth century Holland, England, and France contended for the maritime and commercial supremacy of the world; during the first half of the century Holland attained that position; during the latter half, as we have seen, her power began to wane, while England nearly reached first place, with France rapidly becoming second in the race. Early in the eighteenth century Holland dropped out of the race, and the struggle for supremacy was then chiefly between England and France, with a few other nations, like Denmark and Sweden, rising temporarily into prominence. Before describing this struggle we must briefly outline the economic development of England and France during the seventeenth century.

167. France during the seventeenth century. The civil and religious wars in France during the latter part of the sixteenth century had caused a great loss of life and property, and in many other ways had been disastrous to agriculture, manufactures, and commerce. Fortunately, however, Henry IV (1594-1610), guided by the advice of Sully, Laffemas, Olivier de Serres, and others, was able to rescue France from her miserable condition. Order was restored, the Edict of Nantes was issued (1598), the government finances were reformed, taxes were reduced, certain provincial duties and tolls and the restrictions on exporting grain were removed, old roads were repaired

and new ones built, a system of relays was created, river and harbor improvements were made, the Briare Canal was completed, shipbuilding and certain other manufactures were encouraged, waste lands were reclaimed, model farms were established, books on agriculture were circulated, and commercial treaties were negotiated with England, Spain, Holland, the Hanseatic League, Morocco, and Turkey. As a result of these and other measures there was a rapid economic revival: French farmers soon took the lead in European agriculture and held that position until they felt the blighting effects of Louis XIV's wars, some important manufactures thrived; and a considerable foreign trade and a still more active domestic commerce were developed. After the assassination of Henry IV, France was threatened with two serious dangers, (1) a general revolt of the nobles and (2) the attempted organization of a Protestant republic in the south; for a time it seemed as if there would be a relapse into feudal barbarism and civil war. These dangers, however, were averted by Richelieu (1624-1642), who obtained the loyal support of the masses and continued the work begun by Henry IV. This capable administrator took a special interest in French commerce and shipping: he removed the prohibitions which had prevented noblemen from engaging in commerce; he forbade the exportation of French merchandise, except salt, in foreign vessels; he levied retaliatory duties upon the goods and ships of foreign countries; he made extensive river, harbor, canal, and road improvements; he did his utmost to create a merchant marine; he organized two war fleets for the protection of French commerce; he negotiated numerous commercial treaties; he gave the French postal system a definite organization and established a service of messengers, coaches, and wagons throughout the kingdom. Under Mazarin (1642-1661), France suffered another



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economic reaction. Great as a diplomatist, this statesman continued the foreign policy of Richelieu with marvelous success ; but his domestic policy was a dismal failure, and his administration was therefore a very critical period for French industry and commerce. Fortunately, when he died his place in internal administration was taken by Colbert, a man splendidly qualified by native ability, training, and experience to build upon the foundations laid by Henry IV, Sully, and Richelieu. The government finances were again reorganized and public burdens equalized ; millions were lavished on roads, bridges, river and harbor improvements, coast defenses, and canals, the most important of which was the Languedoc Canal ; the merchant marine and navy were greatly enlarged and improved and French shipping encouraged in various other ways ; numerous commercial treaties were negotiated and foreign merchants were encouraged to settle in France, effective police regulations were established in the French ports, the law of maritime contracts was revised and the admiralty jurisdiction regulated ; agriculture was encouraged by reclaiming waste lands, by the importation of foreign breeds of cattle, sheep, and horses, by creating a better home market, and by many other practical measures.

Colbert's leading idea was to make France industrially self-sufficient, and his most characteristic work was the establishment of a thorough system of protection for native industries. He found many industries declining and France flooded with foreign wares, and he attributed this to the lack of governmental encouragement. Accordingly, in 1664 and 1667 he carried through two comprehensive protective tariffs. He also spared no expense in buying the industrial secrets of other nations and in attracting their most skillful artisans to France ; prizes were judiciously offered for the best workmanship, and heavy fines were imposed for

manufacturing inferior articles; liberal loans were made by the government to manufacturers. Colbert's protective system was excessively paternal in many ways, for the government went so far as to dictate the methods of manufacturing, and even the dimensions, qualities, colors, and fashions of the articles made, but whatever may be thought of this or that feature, or the ultimate effects of his industrial policy, there can be no doubt that French industry prospered during his ministry far more than ever before. It was an opportune moment for such a policy. The preponderance in European politics just assured to France by the treaties of Westphalia (1648) and the Pyrenees (1659), and the increasing brilliancy of Louis XIV's reign, had inspired the nation with unusual confidence in itself. All the industrial forces of France were ready for a new onward march. Colbert came into power at the right moment to give direction and encouragement to these forces, and his protective system admirably supplemented them. France became covered with thriving workshops; many French cloths soon had no rivals in Europe; the linens and serges of Holland, the laces, silks, velvets, and glassware of Italy, the carpets of Persia and Turkey were now equaled in France; the tapestries of Flanders were surpassed by those of the Gobelins; sugar refineries were numerous in Marseilles and along the Loire; French papers, hats, stockings, porcelains, leathers, steel, and hardware were also famous. Foreign and domestic commerce, as well as manufactures, prospered during Colbert's brilliant administration. France traded extensively with Holland, Flanders, England, Italy, Spain, Portugal, and the Levant, and to a lesser extent with Germany, Denmark, Norway, Sweden, Russia, America, northern and western Africa, and the East Indies.

168. French colonization during the seventeenth century. Although Basques and Normans had frequented the

Newfoundland fisheries from the first part of the sixteenth century, if not earlier, the French did not make any permanent settlement in North America before the reign of Henry IV. The expeditions of Cartier and Roberval (1534-1540), Ribault (1562), and Laudonnière (1563) failed, as did also the first ones sent out by Henry IV (1598-1604). In 1608, however, Port Royal was reoccupied, Quebec founded, and the colony of New France established. The death of Henry IV and other causes checked French colonization, and little more was attempted until Richelieu tried to awaken an interest in such enterprises by creating various trading companies. Even under Richelieu's stimulation little was accomplished, and the colonies were almost entirely neglected by Mazarin. Colbert, like Henry IV and Richelieu, dreamed of a French colonial empire and formed five great trading companies. (1) the West India Company, (2) the Senegal Company, (3) the East India Company, (4) the Company of the North, and (5) the Levant Company. A few settlements were made in the West and East Indies, Guiana, and western Africa, the Great Lake region and the Mississippi valley were explored, the Newfoundland fisheries and the fur trade were stimulated; but Colbert, like his predecessors, failed to awaken any great enthusiasm for colonizing enterprises, and after his death the colonial ambition of France was for a time completely stifled by the love of military glory.

169. The later years of Louis XIV. The death of Colbert left French industry and commerce under the personal control of a king influenced almost entirely by evil favorites. Guided by them, Louis XIV revoked the Edict of Nantes (1685) and plunged into his later wars, all of which were foolish and disastrous. The first of these measures crippled French industry and commerce very seriously, because the greatest merchants and manufacturers and most

of the best artisans were Protestants and fled from the country in numbers variously estimated from two hundred and fifty thousand to five hundred thousand, most of them going to London, Amsterdam, Geneva, and Berlin. Many of the manufacturing districts of France were almost depopulated, and the secrets of successful manufacturing, which had been patiently accumulated for many generations, were now suddenly revealed to other countries. The later wars of Louis were also terribly destructive to French agriculture, manufactures, and commerce. The ravages of these wars, the increased taxes and imposts, and the multiplication of useless offices, which were filled with incompetent debauchees of the corrupt court, completed the destruction begun by the revocation of the Edict of Nantes.

170. England during the seventeenth century. Many of the influences that had aided the growth of English manufactures during the latter part of Elizabeth's reign continued to operate throughout most of the seventeenth century. The tide of immigration from the Netherlands continued, and another one set in from France after the revocation of the Edict of Nantes. In this way many thousands of skilled workmen and large quantities of foreign capital were brought into the country; about fifty thousand came from France alone, bringing with them about \$15,000,000. Furthermore, during the seventeenth century England enjoyed a prolonged peace, for with the exception of the parliamentary war there were few conflicts on home soil, and even that war was fought without much injury to English industry. On the other hand, the continental nations were almost continually engaged in very wasteful wars. The manufactures of Germany were ruined by the Thirty Years' War; those of Flanders had already been nearly destroyed by the Spaniards, and their ruin was soon

completed by the wars of the seventeenth century ; those of Holland and France were also seriously crippled by the later wars of Louis XIV. The English government also tried to encourage manufactures by high protective duties, by the removal of many duties on raw materials, and by prohibitions on the exportation of such raw materials as could be used by English manufacturers. English commerce also made steady progress during the first half of the seventeenth century, and during the latter half this development was quite rapid. Most of this trade was conducted by great trading companies, such as the East India Company, the Levant Company, the Muscovy Company, the Eastland Company (trading with Baltic countries), the French Company, and the Merchants Adventurers' Company (trading with Germany and the Netherlands). Other companies and individual merchants traded with Spain, Portugal, Italy, and other Mediterranean countries. The establishment of a government postal system (1656), the creation of the Bank of England (1694), and the reform of the currency (1698) during this century proved very beneficial to English industry and commerce. During the second half of the century the annual exports of England increased from about \$10,000,000 to about \$30,000,000. It is important to note that English manufactures were now rapidly taking the place of raw wool as the leading export. English agriculture was on the whole very prosperous during the seventeenth century. Wool was still the most important product, but increasing quantities of grain, hops, flax, hemp, turnips, clover, and other root crops were grown ; important treatises on agriculture were published, and rational methods of cultivation and fertilizing were much more generally employed ; extensive inclosures of common lands were made, and vast tracts of waste land, especially in the Fen Country, were reclaimed.

171. English colonization during the seventeenth century. All the English attempts to colonize the New World during the Tudor period had, as we have seen, been unsuccessful. It was not until the Stuart period that English colonization took root in this region, and even then its growth was slow at first. Although last in the field, however, the English were ultimately far more successful than other nationalities. The English emigrants soon freed their minds of illusions regarding the fabulous riches to be found in America, and settled down to the steady work of pioneers, quite willing to endure all the necessary hardships. And well they might do so, for the mother country offered little but starvation and persecution to most of the poor emigrants who crossed the stormy Atlantic. In the New World they could at least be free and eke out a livelihood by hard work, for most of them were brave, sober, industrious, religious, and tenacious of their liberty. Step by step, therefore, in the face of all manner of difficulties, the sturdy English colonists conquered the American wilderness. One by one, in almost uninterrupted succession, colonies were established that were to endure: first in Virginia; then in Massachusetts; later in the century in Connecticut, Rhode Island, New Hampshire, New York, Pennsylvania, New Jersey, Maryland, Carolina, the West Indies, and other islands. For some time there was a wedge of foreign colonists driven in between New England and the southern colonies, but this was removed in the latter part of the century by the conquest of New Netherlands, thus giving a continuous coast line to England's continental possessions in America and removing one of the most important bases of operations from her great rival, Holland. During the seventeenth century England's island colonies in America were of far more commercial importance than those on the continent. In most of the islands the

cultivation of tobacco, sugar, indigo, allspice, and cocoa was developed quite rapidly, and England was thus released from her dependence on Spain and France for these articles. The sugar industry became especially important and enabled England to control the sugar market of the world during the seventeenth century. On the other hand, population increased quite slowly in most of the continental colonies; in 1700 their total population, white and black, was only two hundred and fifty thousand, less than that of Barbados alone. Furthermore, English restrictions¹ interfered much more seriously with the commercial and industrial development of most of her continental colonies than with that of her island colonies. In spite of all obstacles, however, the continental colonies made some economic progress during the seventeenth century. The tobacco industry of Virginia and Maryland was already being developed, and England received a large share of the exports of this article. By the close of the century Virginia was sending annually fifteen million pounds of tobacco to England alone, and the amount was increasing steadily. During the last decade of the century, the rice industry was developed quite rapidly in Carolina. At first most of the rice went to Spain and Portugal, but some went to England. Some lumber was also shipped to England from the southern colonies. England sent her own manufactures to these colonies in return for the above raw materials. The trade with the northern and middle colonies was even more limited, being confined chiefly to skins, furs, lumber, and fish, as other articles were generally excluded from England by high duties. The trade of these colonies was largely a "three-cornered" one, most of the money to pay for English manufactures being derived from their exports to other countries and colonies. In 1687 a French

¹ Cf. Part IV, chap. xxvii.

Protestant refugee, writing from Boston, said: "This town carries on a great trade with the islands of America and with Spain. They carry to the islands flour, salt beef, salt pork, cod, staves, salt salmon, salt mackerel, onions, and oysters salted in barrels, great quantities of which are salted here." In general it may be said that New England sent her best fish to Spain, Portugal, and sometimes to other Mediterranean countries, and received in return salt, money, and some manufactures; she sent to the island colonies of England, France, Holland, and Spain her poorer grades of fish and considerable quantities of lumber, staves, masts, horses, cattle, beef, and pork, receiving from them molasses, sugar, rum, and money. Similarly, the middle colonies sent to the West Indies flour, bread, peas, bacon, pork, beef, butter, cheese, cattle, horses, and lumber, and received about the same articles that New England did. During the seventeenth century the English fishermen were gradually supplanting the French on the mainland of Newfoundland, and thus supplied England and other European markets with large quantities of fish. Farther to the north enterprising English traders carried on a thriving traffic in skins and furs. In 1670 the Hudson Bay Company was given exclusive control of this trade, and it established numerous trading posts and forts at the mouths of the rivers Rupert, Moore, Albany, Nelson, and Churchill. French war vessels occasionally wrought great havoc there, but the Treaty of Ryswick (1697) left the English in undisputed possession. In Nova Scotia the English accomplished very little during the seventeenth century except mixing to a slight extent with the French population.

For a long time the English did not venture into the East Indies on account of the superior strength of the Portuguese and the papal bull giving the latter power exclusive possession of that region; but the decline of Portugal and

the weakening of the pope's authority in England by the Reformation removed these barriers. In 1582 Captain Stephens sailed to India by way of the Cape of Good Hope, and his voyage was followed by the more famous one of Cavendish, who went to the Philippines and returned richly laden with eastern products (1586-1588). The glittering reports of these voyages soon inflamed the daring and venturesome spirits of England with the desire to imitate them. In 1593 fuel was added to the flame by the capture of a large Portuguese ship filled with gold, spices, silks, pearls, drugs, porcelain, and ivory. In 1600, therefore, the great East India Company was chartered by Queen Elizabeth, and five small ships were sent out the next year under Captain Lancaster. This expedition, and two others which soon followed, proved unexpectedly successful; but the enthusiasm soon waned, and for many years thereafter the English trade with the East Indies was quite limited, largely on account of Dutch rivalry. After a struggle between the two nationalities in the islands of the Far East, a tacit agreement seems to have been made by which the English were to occupy the Indian peninsula and the Dutch the islands and mainland farther east. In 1612, therefore, the English obtained permission from the Great Mogul at Delhi to erect a factory at Surat. The Portuguese were soon driven away from this region and from most of the Malabar and Coromandel coasts, while English trading posts were established at Calicut, Masulipatam, and even at Delhi. In 1640 Fort St. George (Madras) was built and soon became an active trading center; in 1645 factories were established in the Bengal district. The company, however, did not make very rapid progress in India until after the Restoration. Charles I and Cromwell were too much occupied with other questions to give much attention to Indian affairs, and the stock of the company fell to sixty

per cent during this period. On the other hand, after the Restoration the affairs of the company were intrusted to the management of Sir Josiah Child, once only an errand boy in a countinghouse, but now one of the most eminent business men and economists in England. Under his efficient management the company's stock soon rose to three hundred per cent and even higher. In 1662 the English aided the Persians in capturing Ormuz, the chief Portuguese depot in the East at that time. This city was razed to the ground and opposite its site was created a new port, through which the English developed valuable commercial relations with Persia. In 1663 Bombay was obtained by Charles II as a wedding gift when he married the Portuguese princess, Catharine of Braganza, and five years later he gave it to the company. In 1689 Calcutta was ceded to the company by the Great Mogul, and this became an important station protected by a strong fort, named Fort William in honor of the new king. For a time the Revolution of 1688 threatened the extinction of the East India Company. A fierce war was waged on its monopolistic privileges by a large body of merchants who had long wished to compete in the Indian trade. This struggle culminated in the creation of a rival company (1698), but after a few years the older company wisely agreed to go into partnership with the new one. Accordingly, in 1702, the two companies were consolidated into the United East India Company.

172. Relative position of England and France at the opening of the eighteenth century. During the administration of Colbert and the years immediately following, French industry and commerce thrived in common with that of England; both countries were gaining rapidly at the expense of Holland. The blunders of the latter part of Louis XIV's reign, however, proved very disastrous to France. While the War of the Spanish Succession (1701-1714) enabled her

to seize some of Holland's carrying trade in the two Indies and the Mediterranean, it, together with Louis XIV's other blunders, crippled her agriculture and manufactures, seriously checked the growth of many parts of her foreign trade, and left her bankrupt with a public debt of about \$500,000,000 and an annual deficit of \$16,000,000. England, on the other hand, had gained upon Holland, during nearly all of the latter half of the seventeenth century, far more rapidly than France, and she, moreover, continued to prosper after France began to decline. Her colonies were multiplying and increasing their resources, and her trading companies were extending their mercantile operations into every part of the world. The opening years of the eighteenth century gave England still further advantages over both her great rivals. In 1703 the Methuen Treaty was signed with Portugal. By this treaty British woollens were admitted into Portugal and her colonies, while Portuguese wines were admitted into England at two thirds the duty on French wines. This was a blow at both France and Holland, for both countries were sending considerable quantities of goods to Portugal, while Holland enjoyed a monopoly of her carrying trade and that of her colonies. Of course this treaty increased England's trade with Portugal and Brazil, but it soon destroyed most of her trade with France and fanned the flame of commercial rivalry between these two countries. The Act of Union with Scotland (1707) was another advantage to England in her race for supremacy by providing reciprocal freedom of trade, by freeing English commerce from the danger of hostile Scotch legislation, and by adding the rapidly developing resources of Glasgow to the national wealth. The War of the Spanish Succession also proved a blessing rather than a curse to England; during its progress her farmers, manufacturers, and merchants were unusually prosperous, and the growth

of Liverpool and some other towns was phenomenal; at its close she received Gibraltar, Minorca, the Hudson Bay Territory, Nova Scotia, Newfoundland, the French portion of St. Christopher's Island, a monopoly of the negro slave trade with Spanish America, and the right of sending annually to Panama a ship of six hundred tons laden with goods for the Spanish colonists. On the other hand, Holland was completely exhausted after this war, and France, as we have just seen, was also seriously crippled. England, therefore, after the Treaty of Utrecht (1713) was clearly in the ascendant; apparently she had already won the race for maritime and commercial supremacy. But England's supremacy was not yet based so much upon her own inherent strength as upon the decline of her two greatest rivals. While one of these rivals, Holland, never again recovered sufficiently to prove dangerous, the exhaustion of the other proved only temporary. England still needed much further economic development in order to cope again with France when that country had recovered her strength.

173. England's progress after the Treaty of Utrecht was commensurate with her future needs. Never before had her merchants been so powerful, wide-awake, and active; they now did business in all the Mediterranean and Baltic countries, and in fact with nearly every country in Europe; they went to India, Arabia, Africa, North and South America; in all these countries they were rapidly extending their trade. Unfortunately, about this time the investing public was seized with a mania for commercial speculation and gambling in stocks and bonds. This was a natural result of the development of banking, the extensive credit, and the enthusiasm and activity aroused by the war. Several hundred companies were organized with a nominal capital stock aggregating about \$2,500,000,000, many of which undertook to float the wildest of projects.

One company, for example, was formed "for making salt water fresh"; another, "for breeding silkworms in Chelsea Park"; another, "for importing a number of large jackasses from Spain in order to propagate a larger kind of mule in England"; and finally one impostor had the impudence to ask the public to take shares in "an undertaking, the nature of which was in due time to be revealed." Some of the many companies formed were managed by men of experience and ability, and succeeded, but most of them were controlled by swindlers or ignoramuses and were failures. Unfortunately, many of the corrupt government officials of the time were swindlers, and helped bolster up these visionary schemes with their influence, in order to fleece the public. The two most notorious companies were the Darien Company, chartered by the Scotch Parliament (1695), and the South Sea Company, formed in 1711. The first company proposed to colonize the Isthmus of Darien, and to trade with Asia, Africa, and America. An expedition was sent out to Darien (1698), but the unhealthy climate, the attacks of the Spaniards, and the opposition of English capitalists sealed the fate of the colonists, few of whom ever returned. The failure of this scheme impoverished Scotland, but it helped to bring about the subsequent Act of Union (1707). The plan of the South Sea Company was very plausible. Its promoters proposed to assume the national debt and thus obtain extensive government credit; they secured the Assiento contract, giving a monopoly of the slave trade with Spanish America; they engaged in the whale fisheries and undertook to exploit the fabulous South Sea mines. The prospects of enormous profits from all these sources induced thousands, who had hoarded their money during the wars, to part with it, and the speculative fever ran so high that the price of shares rose from £120 in April, 1720, to £1020 in July. Just as soon as it was

ascertained that the company could not keep its promises the price of shares tumbled, causing a panic which ruined thousands of duped investors. On the other hand, the South Sea Bubble showed plainly that there was an abundance of wealth in England. While some of this wealth was wasted in foolish enterprises, much of it simply changed hands and was thus set loose for more stable undertakings. The revelation of this wealth made the English people more self-confident than ever and more determined to monopolize the world's trade.

Just in the midst of the collapse of the South Sea Company Robert Walpole came into power, and by shrewd manipulation and unparalleled bribery he retained control of the government for twenty-one years. During his "reign of common sense" England was able to recover from the bad effects of the panic and continue her economic development. One line of activity during this period, however, finally broke up Walpole's peace policy, viz., the extensive English smuggling in Spanish America. Walpole was very much annoyed by this smuggling, but could not prevent it. In 1739 he was forced by the opposition under the lead of William Pitt to declare war against Spain, chiefly on the ground of the Spanish claim to the "right of search" and the loss of an ear by a certain Captain Jenkins in an encounter with a Spanish vessel. Instead of resigning, Walpole remained in office hoping that he might bring peace sooner than some other minister. As might be expected the war was not very successful because the navy had declined and because Walpole did not conduct very vigorously a war which he did not favor. The English took Porto Bello, but failed to capture Cartagena and Santiago. In 1742 Walpole was forced to resign, and after he left office the War of Jenkins' Ear was merged in the larger War of the Austrian Succession. Thus was Walpole's peace policy finally broken up.

England's American colonies developed quite rapidly during the first half of the eighteenth century. Not only did the colonies already planted continue to grow, but new ones were established. Georgia was added to the list of continental colonies; English colonists pushed into the Ohio valley; England's title to the Hudson Bay Territory, Newfoundland, and Nova Scotia was cleared; French and Spanish pirates were driven out of the islands, which were then brought more completely under English control. England's trade with her continental colonies increased from about \$3,250,000 in 1698 to \$10,000,000 in 1751, and \$27,250,000 in 1771. The general course of this trade was nearly the same as during the seventeenth century. Over three fourths of the exports from these colonies to England came from Virginia, Maryland, and the Carolinas, which sent most of their surplus products to the mother country, engaging in other trade only to a limited extent. The middle and northern colonies, on the other hand, sent only a limited amount of their products to England, because they were barred out by high duties. Most of their products were sent to the West Indies and other countries, generally in violation of the Navigation Acts. One new line of trade was developed by New England during the eighteenth century, in the course of which molasses was secured in the West Indies, taken to New England, and there manufactured into rum; taken thence to Africa and exchanged for negroes, who were sold as slaves in the West Indies and the southern continental colonies.¹ England's trade with her island colonies increased during most of the first half of the eighteenth century, though not so rapidly as during the seventeenth century, and more slowly than that of the continental colonies and the French

¹ This return voyage from Africa was the famous "middle passage," in which the negroes were subjected to very cruel treatment.

islands. By 1740 French sugars had driven English sugars out of all the European markets except England, and even the continental colonies were then securing a large part of their supply from the French islands. In 1733 England tried to improve the sugar industry by the Molasses Act, which fixed a duty of five shillings per hundredweight on sugar, sixpence per gallon on molasses, and ninepence per gallon on rum imported into any of the British colonies from foreign colonies ; but the law was practically a dead letter and failed to accomplish its intended purpose. Towards the close of the century, however, the sugar industry improved somewhat in the British islands.

In India the English made slow progress during the first half of the eighteenth century. During the War of the Spanish Succession the United East India Company was quite successful, but its work was seriously interrupted for several years by the South Sea Company, which drew public attention in another direction. Even after the downfall of the South Sea Company, English colonial trade was more active in America and western Africa than in India. Enough trade had been developed in the East, however, to create a keen appetite for more, and we shall presently see that the desire to control India was one of England's motives in her great struggle with France.

174. The recovery of France (1726-1756). We have seen that France was economically exhausted after the War of the Spanish Succession ; for a time, during the administration of the debauched and perfidious Dubois, she was even politically subservient to England. Partly induced by English bribes, Dubois signed the Triple Alliance (1717), which among many other things required France to demolish her defenses at Mardyck, fill up the port of Dunkirk, and waive her rights of navigation and commerce in the South Sea. In the Quadruple Alliance (1718), which

was primarily directed against Alberoni's schemes, France agreed to serve her former rival, England, by invading Spain. France, however, did not long remain under the domination of English bribed ministers. In 1726 Fleury became the leading minister and remained in power until 1743. On the whole his administration was a very prosperous period for France. He, like his contemporary, Walpole, desired peace in order that his country might retrieve her losses and enrich herself by industry and commerce. He reorganized the finances, got rid of the deficit, restored public credit, at the same time lightening the burdens of taxation, and further aided commerce and industry by constructing roads and other valuable public works. The French marine, however, was neglected by Fleury, and after seven years his peace policy was interrupted by the death of the king of Poland. Fleury wanted to keep out of the quarrel about the succession, but public opinion forced him to take part in the War of the Polish Succession that followed (1733-1735). Fortunately, the war was short and did not seriously check economic development. France, moreover, emerged from this war with a greatly enhanced reputation, and for several years thereafter was able to continue the development of her splendid natural resources. Just then she was forced into the War of the Austrian Succession (1744-1748), which seriously checked her industrial and commercial progress, and left her a distinctly weaker political power. During the eight years following this war, however, France made more rapid economic development than she had ever made before in a period of like duration. Private enterprise was unusually active and was ably seconded by wise governmental encouragement and protection; the prejudice against commerce was being rapidly overcome, and the merchant class was becoming a more powerful factor in the state; Voltaire had just

declared that "the merchant who enriches his country is an honor to the world"; the increasing patronage of art and the increasing attention paid to fashions renewed and strengthened the demand for the manufacture of numberless articles of luxury; just at this moment also science was beginning to place many discoveries at the disposal of industry. This fortunate combination of active private enterprise, wise governmental protection, scientific discoveries, liberal views concerning trade, and the demands of art and fashion was rapidly making France the leading industrial nation in Europe. Public works were also being constructed on a large scale during this period. France was minutely intersected by a network of magnificent roads; rivers were bridged; levees were built to protect the Loire valley from inundation; the Rhine was diked; many cities were transformed by the erection of museums, temples, palaces, monuments, chateaux, and villas.

French commerce with the Austrian Netherlands, Holland, Germany, Switzerland, Scandinavia, and Russia increased quite rapidly during the thirty years preceding the Seven Years' War, while Nantes, Bordeaux, Marseilles, and some other cities extended their trade with Spain, Italy, the Levant, and other Mediterranean countries. At first this awakening took the form of a speculative fever similar to the South Sea Bubble in England, the germs of which were brought across the Channel by the Scotchman, John Law. Just as the English began to dream of mines in the Orinoco country, the French began to dream of them on the banks of the lower Mississippi. All classes of people rushed eagerly into this Mississippi scheme only to be bitterly disappointed; the panic which followed caused widespread misery and disaster. On the other hand, Law's scheme was not without good results: it showed the power of credit; it gave a certain impulse to

commerce and industry, which fortunately was followed by the wise administration of Fleury; it was the means of striking some foreign products which France needed from the protective list; it created a great interest in colonial enterprises; it led to a more liberal colonial policy. The French West Indies were greatly benefited by the new interest in colonial enterprises and the more liberal colonial policy. From all the French ports, especially Nantes and Bordeaux, flowed a continuous stream of emigrants and capital to Martinique, San Domingo, Guadeloupe, and other islands. Soon vast quantities of sugar, coffee, rum, and molasses were produced there, together with considerable cocoa, spices, indigo, dyewoods, beef, hides, and cotton. The War of the Austrian Succession interrupted the prosperity of these islands, but after its close there was a speedy revival and a further rapid development. Canada did not share in this newly awakened interest and prosperity. Her defective social and political system, her neglect of agriculture and other stable industries, and other causes prevented her development; to the last she remained a constant bill of expense to France, her total trade in 1753 being less than \$1,400,000. The French fisheries were temporarily checked by the loss of Newfoundland, Acadia, and the Hudson Bay Territory in 1713; but France atoned for this loss by strongly defending Louisburg on Cape Breton Island. The fisheries around that island, therefore, soon largely compensated the French for the partial loss of their fishing privileges in Newfoundland. Louisiana underwent a series of unfortunate enterprises. La Salle's expedition ended sadly, and Iberville's colony (1699) was soon stranded; Crozat vainly spent enormous sums there (1712-1717); even Law with his brilliant mining schemes could not attract thither voluntary colonists. Nevertheless, New Orleans was founded (1718),

some other trading posts were established, and the culture of tobacco and indigo was introduced ; but population was too scattered for commerce to thrive in this region. If Louisiana had not been ceded to Spain in 1762, however, she would probably have developed more rapidly after that by an emigration from Canada and the English colonies.

In the East Indies, France was more fortunate for a little while, only to end in failure. The East India Company founded by Colbert had been unsuccessful, but a great revival followed the absorption of this company into Law's Company of the Indies. French colonists were sent to Mauritius ; coffee was introduced into Bourbon ; numerous trading posts were established in India ; the hand manufactures of the natives were greatly stimulated by French demands. Many of the governors and other officials sent by France to the East during this period were very capable men, especially Dupleix, Dumas, and Labourdonnais. Dupleix, in particular, clearly foresaw the commercial possibilities of India and sought a French dominion over it. A long sojourn in the country had given him an intimate knowledge of its climate, resources, and peoples. His kind treatment of the natives, his respect for their customs and beliefs, his extensive personal acquaintance throughout a large part of the peninsula, the great influence exercised over the natives by his Creole wife, the Princess Jeannette, — all these things gave Dupleix a wonderful ascendancy over the Hindoos and made his administration very successful. After a few years under his rule, Pondicherry was sending to France products worth about \$7,000,000 annually, and Chandernagor was even more prosperous. Not only did Dupleix extend the commercial relations of the company, but he brought thirty million Hindoos under French suzerainty. On the other side of the Indian Ocean, Mauritius was transformed by Labourdonnais and made a

very active commercial center. Unfortunately for France a quarrel between these two governors prevented concerted action just at the critical moment when Duplex needed all the strength he could muster to oppose the advance of the English

175. The Seven Years' War. We are now prepared to see clearly the causes for the great struggle between France and England for commercial and colonial supremacy. England was very jealous of French success in the East and West Indies, French occupation of the Mississippi and Ohio valleys and the Great Lake region, and the remarkable growth of French manufactures and commerce during the previous thirty years. England was also alarmed at the rapid revival of France after the War of the Austrian Succession, especially the efforts of d'Argenson in developing the French navy. The sudden alliance of France and Austria after that war also threatened England's trade with the Austrian Netherlands. The two nations first came into collision in India and the Ohio valley; but England, under the Newcastle ministry, hesitated about declaring war for some time after these preliminary skirmishes. In 1756, however, when France recaptured Minorca, war was promptly declared. William Pitt, who represented the English traders, formed a coalition with Newcastle, who represented the landlords, and in this way was able to keep a parliamentary majority through Newcastle's control of the corrupt party machinery. By letting Newcastle manage the "patronage" Pitt was able to keep the control of the war in his own hands, and from first to last he managed it with an eye single to the interests of the English merchants; through his management the Seven Years' War, on England's part, became chiefly a great struggle for colonial, maritime, and commercial supremacy, while the war on the European continent was with her a matter of

secondary importance. France, on the other hand, for various reasons, either chose or found it necessary to center her efforts in the European part of the struggle. It is not surprising, therefore, to find a sudden collapse of French colonial and maritime power resulting from this war. During the war England gained possession of nearly everything in India and America, including most of the French and Spanish West Indies ; but her part in the European war was not sufficiently brilliant to enable her to keep everything won in the colonies. England chose to retain Canada rather than the French West Indies, and probably made a mistake in doing so, for she took the less profitable of the two regions, and also removed the danger of French and Indian attacks upon the continental colonies, thus making them less dependent upon her. By taking the French West Indies, England might have made a most valuable addition to her commercial empire. Furthermore, she might have derived from the trade of these islands ample compensation for the debts incurred during the war without feeling it necessary to tax the continental colonies or to enforce her restrictions upon their commerce. In this way she might have gradually revised her colonial policy and welded together the continental and island colonies into a magnificent colonial domain. As it was, however, England, in the Seven Years' War, seriously crippled her greatest rival, France, in India, America, and on the sea, while Spain was shorn of all power to prevent England's westward march to the Mississippi. Holland was already hopelessly exhausted, and no other nation was able to contend with England for supremacy.

176. French revenge and England's loss of her American colonies. Just at the moment when she seemed supreme, England undertook to apply with renewed vigor the "sole market" theory to the world's trade. Unfortunately, this

policy, together with the levying of internal taxes and other causes, led most of her colonies in the North American continent to revolt and finally engage in a war for independence. This war gave France an excellent opportunity to take revenge for the losses already inflicted upon her. Vergennes, the French minister, at first contented himself with sending the Americans arms, ammunition, and money; but in February, 1778, after the British disaster at Saratoga, France openly allied herself with the United States. The example of France proved contagious. In 1779 Spain joined in the war against England, hoping thereby to recover Gibraltar and Minorca. These alliances were especially dangerous, because France had for several years been strengthening her navy, and Spain's naval quota was by no means insignificant. Early in 1779 a French squadron seized the British possessions in Senegal and on the Gambia, and later in the year a combined French and Spanish fleet sailed up the Channel without opposition. For a time the French navy was master of the seas and succeeded in taking numerous British prizes and possessions, by 1782 England had lost Minorca and nearly all of her West Indian islands except Jamaica, while her possessions in India were seriously endangered by several French naval victories. In the Treaty of Versailles (1783) England, in addition to the recognition of the independence of the United States, surrendered to France Chandernagor, Pondicherry, and a few other places in India, the islands of St. Pierre and Miquelon in the St. Lawrence, Tobago and St. Lucia in the West Indies, Gorée and Senegal in Africa, the right of fishing off Newfoundland, and guaranteed to her the right of fortifying Dunkirk. At the same time France agreed to withdraw her support from Tippoo, the son of Hyder Ali, in India. England gave Minorca and Florida to Spain, but

Spain ceded the Bahamas to England and had to give up all hopes of recovering Gibraltar.

In the meantime, in another direction, a vast coalition was forming against England's despotic exercise of the "right of search." In 1780 Catherine II of Russia issued a declaration containing what was then a new doctrine, viz., that "free ships make free goods," and proclaiming that "paper blockades" were inadmissible. To defend these principles Russia proposed a plan of "armed neutrality," which was adopted by Sweden, Denmark, Prussia, Austria, Portugal, the Two Sicilies, and Holland. France and Spain also supported the league, which thus proved a serious check upon England and enabled several countries to pick up considerable neutral trade, notably Sweden and Denmark. England, however, singled out Holland from the rest of the league and made war upon her. In the Treaty of Versailles, Holland was punished for her temerity by the loss of Negapatam. This league, however, was another important factor in compelling England to recognize the independence of the United States.

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CHAPTER XX

THE REMAINDER OF EUROPE DURING THE SEVENTEENTH AND EIGHTEENTH CENTURIES

177. Poland. Late in the Middle Age, Poland, under the house of Jagellon, shot like a meteor into the northern and eastern horizon of Europe and for a time seemed likely to become the leading state in that region; but her star waned almost as rapidly as it rose. Owing to her oligarchical constitution, her elective monarchy, the reactionary religious policy of her rulers, and other causes, she soon sank into insignificance and was ultimately parceled out among Russia, Austria, and Prussia. The continual dissensions and civil wars in this unfortunate country made it impossible for manufactures and commerce to thrive there; from first to last, therefore, Poland was an agricultural state and little more than a feeder for other countries. Foreigners monopolized what little trade she had, collecting her grain, timber, flax, hemp, and cattle at Breslau, Krakow, and Lemberg, and shipping it thence by way of Danzig, Königsberg, and Elbing in exchange for wines and manufactured products.

178. Sweden. Early in the sixteenth century Sweden, under Gustavus Vasa, freed herself from Denmark, became Protestant, and increased in strength quite rapidly. Between 1561 and 1648 Esthonia, Livonia, Pomerania, Bremen, and other portions of northern Germany were acquired. During the seventeenth century, under Charles IX, Gustavus Adolphus, Oxenstiern, and Charles XI, Sweden ranked among

the great continental powers. Throughout this century Swedish industry and commerce profited greatly by these territorial acquisitions and the liberal encouragement of these rulers. Towns sprang up, the iron, copper, and ship-building industries flourished, silks and other cloths were manufactured, large amounts of Dutch capital found profitable investment there, commercial treaties were signed, a Swedish South Sea Company was formed, and some temporary settlements were made in North America. Gustavus Adolphus (1611-1633) enlarged the navy, and its successes increased the security of Swedish commerce. Under Oxenstiern, the minister of Christina (1633-1654), the Swedish flag was supreme in the Baltic, and the Swedes even competed with the Dutch. Charles XI (1660-1697) continued the work of Gustavus Adolphus and Oxenstiern. He improved the finances, established a bank, imposed duties on foreign cloths, and facilitated internal trade. When he died Sweden was strong in resources and wealth, defended by a splendidly disciplined army and navy, ready for an onward march of industrial and commercial progress. Just then appeared Charles XII, the "Madman of the North," who, by his reckless wars and impossible ambitions, wrecked the industrial and commercial, as well as political, hopes of Sweden. His soldiers were drawn from the farms and shops, and agriculture and manufactures were thus undermined, while his heavy expenditures exhausted the country's wealth and destroyed the credit of the government. By the time of his death (1718) all the work of Gustavus, Oxenstiern, and Charles XI was undone; industries were prostrate, the paper money badly depreciated, and there were only three Swedish ships on the Baltic where once the Swedish flag was supreme.

During the eighteenth century Sweden gradually revived. Agriculture made substantial progress, and the mines

were again worked quite successfully. During the war for American independence, Sweden also made very great gains in foreign commerce, as she was one of the few neutral nations during that war. The Swedes at that time almost entirely superseded the Dutch in the Mediterranean; they traded quite extensively with China and the East Indies; they obtained the island of St. Bartholomew in the West Indies in 1784, and this became an active trading center. This prosperity was temporarily checked by the war with Russia in 1789, but the Napoleonic wars afforded another opportunity for commercial growth, which, as we shall subsequently see, was eagerly taken advantage of.

179. Denmark, commanding the entrance to the Baltic, united to Norway, and possessing Iceland and Greenland, was better situated for becoming a commercial power than Sweden. Although portions of her territory were marshy or sandy, other portions were very fertile and well adapted to dairy farming and cattle rearing, and she also possessed very valuable fisheries. By the end of the sixteenth century, therefore, Denmark and Norway had developed quite an extensive trade, exporting considerable quantities of cattle, horses, sheep, wool, salted beef and pork, butter, cheese, tallow, lard, hides, skins, poultry, vegetables, tar, lumber, silver, copper, and large quantities of fish. During the seventeenth century a regular trade was developed with Iceland, Greenland, and the Farøes; an East India Company and a West India Company were formed; agriculture was improved, especially in Holstein and Jutland; manufactures were developed, chiefly by French Protestant exiles; in 1671 the island of St. John was obtained from England; Copenhagen became a city of considerable commercial importance, and a bank was established there; the navy was enlarged.

The eighteenth century was a period of still greater prosperity. Throughout the century, agriculture was further developed, as well as certain characteristic manufactures like tar, tile, lumber, rope, and sailcloth, and the fishing industry thrived. In 1719 St. Thomas was acquired and in 1733 St. Croix was purchased from France, both islands becoming the bases of an active trade, much of which was contraband. Factories were established in western Africa, whence were obtained gold, ivory, and slaves. In Asia, Frankebar, Serampore, and some of the Nicobar Islands were still held by Denmark, the first becoming an important center for trade with Canton and the Ganges valley. During the war for American independence, Denmark, like Sweden, profited greatly by her neutrality; her vessels then brought many products from the East and West Indies and China to Germany and other European countries. The Eider Canal, dug during this war, greatly facilitated Denmark's trade with Germany. After this war much of this newly gotten trade returned to its former possessors; but Denmark retained some of it, and her trade with France remained undiminished. During that portion of the French Revolution when Holland was occupied by the French, Denmark profited more than ever before from her extensive neutral trade; but a little later she lost her colonies and most of her marine by resisting England's claim to the "right of search."

180. Russia, until near the close of the seventeenth century, was "an annex of Asia" rather than a part of Europe. When she entered Europe she came knocking at the back door, so to speak, in the person of Peter the Great (1689-1725), who stubbornly contested Sweden's effort to convert the Baltic into a Swedish lake. Russia had already made some industrial and commercial progress, especially under Ivan the Terrible (1533-1584), who imported German

workmen and encouraged trade with England, Holland, Poland, Scandinavia, and France. But it did not take Peter long to discover Russia's immeasurable inferiority to western Europe and the weak points in her geographical situation. From foreign merchants traveling in Russia he had gotten a faint conception of western civilization, and he resolved to know more of it. Accordingly he spent two years traveling through Holland, England, Austria, and Italy, laboring as an ordinary workman in order to learn shipbuilding, attending lectures on anatomy, studying surgery and dentistry, inspecting paper mills, flour mills, printing presses, visiting hospitals, museums, and libraries. He then returned to Russia with two fixed purposes: (1) to extend Russia to her natural boundaries; (2) to force western civilization upon his subjects. While much of his work in attaining the second purpose was artificial, it left permanently good results. The foreign workmen imported by him laid the foundations of industry: marshes were drained, forests cleared, roads opened, canals dug, harbors improved (especially Azov, St Petersburg, and Riga); agriculture was improved, sheep breeding introduced, and the exportation of grains encouraged; silk and woolen manufactures were introduced and protected by tariffs; firearms, rope, and ships were manufactured, mines were opened, and a Council of Mines established, a police system and a postal service were inaugurated; a code of laws based upon those of western nations was framed. Much of this sweeping industrial reconstruction was successful.

Peter's efforts to attain his first purpose must be outlined a little more fully. When he became czar the Russian dominions already embraced about five million square miles, but Archangel was the only seaport. This port was closed more than half of the year by ice and was at all times difficult of access. The only other sea upon which

Russia bordered then was the Caspian, but this was really an Asiatic lake and of no practical value as a basis for foreign commerce or maritime power. Between Russia and the Baltic lay the Swedish provinces of Livonia, Esthonia, Ingria, Karelia, and Finland; between her and the Black Sea lay the Crimea and the country between the Bug and the Dniester; between her and central Europe lay Poland and the old Russian Lithuanian provinces. Peter's first effort to extend his frontiers was his intervention in a war between Austria and Turkey. By the Treaty of Carlowitz (1699), closing this war, he obtained Azov, but was obliged to restore it to the Turks in the Treaty of the Pruth (1711). In another direction, however, he achieved more permanent results. In 1700 he effected a triple alliance between Russia, Denmark, and Poland against Charles XII of Sweden; but the young Swedish king soon surprised his enemies by defeating the Danes, then the Russians at Narva, and finally the Poles and Saxons. Peter, however, was not daunted; he quickly reorganized his army, and, foiled in his attempt to take Narva, he began the building of St. Petersburg. No site could have been more unpromising, as it was surrounded by marshes and impenetrable forests; but it was the only place on the coast which he had. Here, therefore, he undertook to rear a northern Venice, and his army of workmen was marvelously successful in spite of frequent epidemics and inundations. It should be noted that Charles XII missed his opportunity in not following up the Russians after the battle of Narva, for he might thus have thwarted Peter. Contrary to the advice of his best generals, however, he let the Russians escape and turned back to wreak vengeance on the Saxons and Poles. After doing this he plunged into the heart of Russia, where Peter's reorganized army crushed him at the battle of Pultowa (1709). This battle passed the dictatorship

of northern and central Europe from Charles XII to Peter the Great. Russia's hold upon the Baltic was now strengthened by the annexation of Livonia and Esthonia and the capture of Riga, Dunamunde, Revel, and other important towns. The building of St Petersburg was resumed, merchants were encouraged to settle there, and within a few years the new capital of Russia had a flourishing trade.

The accession of Catherine II ushered in a new era of territorial expansion and internal development. Agriculture steadily improved throughout her reign (1762-1796), and the manufacture of linens, silks, woolens, sugar, iron, glass, potash, and some other articles was encouraged. But it is much more important to note that Russia now began a new march to Constantinople. In 1774, by the Treaty of Kainardji, Azov was regained and Kimburn secured, and Russian ships were allowed free passage through the Dardanelles and the privilege of sailing in Turkish waters, including the river Danube. In 1783 the Porte was forced to cede the Crimea to Russia, and the Treaty of Jassy (1792) extended the Russian boundary to the Dniester. Russia thus obtained a firm footing on the Black Sea, and her merchants were enabled to compete with Greeks, Italians, and others in the Mediterranean and Oriental trade. In 1781 five Russian ships left Russian ports for France, and quite an extensive trade was soon developed with that country, Italy, and Spain. Not only the products of southern Russia, but those of Turkestan and Persia, were shipped from Azov, Kherson, Taganrog, and the newly created port of Odessa; for while Russia had been gaining a foothold on the Black Sea, she had been extending her arms towards central Asia, taking Georgia, Tiflis, and the Kirghiz from Persia, thus getting access to the products of that region.

Catherine also advanced the Russian boundaries towards central Europe by that remarkable series of royal robberies

known as the three "partitions of Poland" (1772, 1792, 1795). Acting in conjunction with Austria and Prussia, Russia thus secured nine thousand five hundred square miles of territory in central Europe, containing a population of about six millions, and valuable resources which served as another basis for the extension of trade. Russian merchants were not so successful in the Baltic during Catherine's reign. St. Petersburg continued to grow and prosper, but the trade of this and other Baltic ports remained almost entirely in the hands of English, Dutch, and German merchants.

181. Germany. I. *Effects of the Thirty Years' War.* The century following the Peace of Augsburg (1555) was full of dissensions and misfortunes, and consequently, in most of Germany, a period of great industrial decline. The culmination was reached in the disastrous Thirty Years' War (1618-1648), which left all classes in Germany ruined. Eighteen million of the thirty million population were carried off by the war, pestilence, and famine. Trade, manufactures, and capital were annihilated; vast tracts of land lay uncultivated; the most fertile states of Germany, lower Saxony, Bavaria, and the Palatinate had been changed into deserts. The only cities that survived the general ruin were Hamburg, Lubeck, and Bremen, and these had lost a large part of their former glory. On nearly every frontier, important territories had been torn away from the empire by the Peace of Westphalia. The recovery from such a war was inevitably slow, but it was retarded by several other circumstances, chief among which were the extreme political disunion and the multiplicity of internal customs duties. At the beginning of the eighteenth century there were in Germany about three hundred and sixty sovereign states and nearly two thousand fiefs and religious divisions. Furthermore, during the first half of

the eighteenth century Germany suffered from the War of the Spanish Succession, the War of the Austrian Succession, and other wars.

II *Recovery during the eighteenth century.* In spite of all hindrances, however, Germany slowly recovered during the first half of the eighteenth century and more rapidly during the latter half. Gradually her farmers, especially in the Rhenish provinces, began to export considerable quantities of wines, fruits, grains, cattle, and horses. The wars in which the other European countries were engaged encouraged German agriculture somewhat by creating a demand for her food products, especially wheat. At the same time certain old German manufactures were revived. The linen industry had best survived the ravages of war, and from the beginning of the century developed quite steadily. Nurnberg watches, wood carvings, and toys again became famous; textiles, iron, and arms were manufactured in Westphalia and the Rhenish states; Saxony fleeces surpassed in quality the wool of England and Spain, and consequently the woolen industry was rapidly developed there. Some important new industries were started: porcelain manufactures at Meissen; paper, books, leather binding, engraving, and wood carving at Leipzig and Frankfurt; cotton goods at Chemnitz; glassware in Thuringia; gloves and hats in various parts of Germany.

The increase of agricultural and manufactured products led to an increase of foreign trade. The more general use of coffee, tea, rice, and tobacco furnished one impulse; the luxuries of the many German courts, all of which patterned after Versailles, was another. Hamburg became the great center of the most distant foreign trade; Bremen had most of the trade in grains and French wines; Lubeck monopolized the trade with Russia and the Baltic countries; the

trade of South Germany was largely carried on through Holland, up and down the Rhine, with Amsterdam as the chief center. Although most of the "fairs" in the interior of Germany had been ruined by the Thirty Years' War, some of them were still well attended; as, for example, those at Frankfurt-am-Main, Frankfurt-am-Oder, Leipzig, and Brunswick, the first of these towns becoming the chief interior financial and commercial center for northern Germany and Holland. The building of roads and canals in many parts of Germany during the second half of the century, together with the establishment of banks and trading companies, also stimulated commerce.

III. *The growth of Prussia was more rapid than that of any other German state during the eighteenth century.* Frederick William, the Great Elector (1640-1688), had tried all sorts of enterprises for the aggrandizement of Brandenburg. His efforts to secure Swedish Pomerania and his schemes for colonial conquest had not succeeded, but he clearly indicated to his successors the best policy to follow in order to develop the state industrially, commercially, and politically. No state in Germany revived so quickly after the Thirty Years' War as Brandenburg under his rule. French emigrants were encouraged to settle there, and Berlin became a very prosperous city. In spite of his militarism, Frederick William I, his second successor and the second king of Prussia, was also an ardent protector of industry. He hated France, but borrowed her system of industrial protection. He also acquired the port of Stettin. Frederick the Great continued the protective system inaugurated by his father. From 1763 to 1773 he founded two hundred and sixty-four manufactories, and the velvet, silk, satin, woolen, leather, iron, and sugar industries flourished under his tariffs and subsidies. Eight hundred new villages were created; many towns were

enlarged and beautified ; marshes were drained, agriculture was encouraged, and colonists were attracted from all directions ; the acquisition of Silesia and Polish Prussia doubled the population and resources of the kingdom ; the port of Emden was secured ; the Gulf of Danzig and the estuary of the Elbe were connected by a system of canals between the intervening rivers ; an Insurance Chamber, a Society of Maritime Commerce, the Prussian Indian Company (1750), and the Bank of Prussia were created. Under such varied stimulants, Prussian industry and commerce developed very rapidly during the latter half of the eighteenth century, until checked by the French revolutionary wars.

182. Austria also suffered seriously from the Thirty Years' War. Deprived of her best workmen by that war and by the continual persecutions of the Protestants, her industries declined throughout the seventeenth century. The eighteenth century was to be a most critical period for her, both politically and industrially, on account of the numerous wars in which she was engaged. Her magnificent struggle against the Turks was for a time terminated quite favorably to her by the Treaty of Passarowitz (1718), thanks to the military skill of Prince Eugene. The Treaty of Utrecht (1714) also gave her the Spanish Netherlands; but this proved to be a doubtful advantage, for the trade of these provinces was one of the leading causes of the later wars which impeded her industrial development and checked her political power. For a time, however, Austria derived considerable benefit from these provinces. Charles VI (1711-1740) successfully encouraged the agriculture, manufactures, and trade of the Netherlands. Larger crops of grain and flax were grown; linens, woolens, yarns, laces, iron, hardware, and various other articles were manufactured in much larger quantities than before ; an extensive

trade was developed, especially with France, England, and some German states. The port of Ostend was created and the Ostend Company chartered (1722) to trade with the East Indies, but after a long dispute with England and Holland, Charles VI was obliged to dissolve it in order to get England to guarantee the Pragmatic Sanction. Charles VI did not neglect his hereditary dominions, but encouraged their agriculture and manufactures and granted liberal privileges to merchants trading there. Through his endeavors many of the tariffs between Austria and the German states were abolished; the linen and glass industries of Bohemia were revived; Moravia manufactured linens, woolens, cottons, and leather; the spinning of wool and flax increased rapidly in Silesia and the archduchy of Austria; the iron industry flourished in Styria and Carinthia; the various industries of the Italian provinces prospered, especially silk manufactures; the ports of Trieste and Fiume were declared free, and thus commercial routes were opened through the very heart of the empire.

Maria Theresa (1740-1765) continued the policy of her father with considerable success. She studiously avoided religious persecution; she enlarged the ports of Trieste and Fiume, and created twenty-five consulates in various countries for the protection of their trade; she organized a Council of Commerce for supervising trade, and established an Oriental Academy from which to recruit the consular service; the Nicobar Islands were occupied; by the close of her reign the port of Trieste was visited by about six thousand vessels annually. Her son, Joseph II (1765-1790), by very radical means undertook to weld together all the scattered Austrian territories into a great centralized monarchy of the Prussian type; but his program, most of which was laudable enough, would have required a century to carry out instead of the few years allotted to the task.

As a result of his visionary plans he left to his younger brother, Leopold II, who succeeded him, an empire involved in war with Turkey, weakened by a revolt in the Netherlands and a threatened revolt in Hungary, with confusion in every province caused by the violent conflict between the old and the new régime. On the other hand, Joseph's industrial and commercial policy proved on the whole quite beneficial. He protected old and new industries against foreign competition, created numerous roads and commercial routes, improved rivers and harbors, signed commercial treaties, and developed the naval and merchant marine. Throughout the reigns of Charles VI, Maria Theresa, and Joseph II, therefore, the agriculture, manufactures, and commerce of the Austrian dominions made as much progress as could be expected in the midst of the numerous wars which occurred. Leopold II, fresh from a successful career in Tuscany, soon proved his superior practical ability by concluding an honorable peace with Turkey, by recovering the Netherlands, by opposing the aggrandizement of Russia, by restoring order in Hungary, by wisely compromising most of the troublesome questions bequeathed by his brother, and by continuing the industrial and commercial improvement of his various dominions. But, unfortunately for Austria, Leopold II died after a brief rule of two years (1790-1792).

Francis II (1792-1835) was as weak and incapable as Leopold had been strong and capable. His minister, Thugut, at once entered headlong into the old Hapsburg policy of territorial expansion, instead of continuing the consolidation and improvement of the territories already under Austrian rule. The French Revolution, which was just then attracting attention, was, in his eyes, only an opportunity for taking a liberal slice of French Flanders; to him, Bavaria, Turkey, Poland, and Italy were only weak

neighbors who might be compelled to surrender territory to Austria; his only criticism of the ruthless second partition of Poland (1792) by Russia and Prussia was that Austria had not gotten a share. Under his administration, therefore, Austria's real interests were continually sacrificed; her material development was suddenly checked, and her agriculture, manufactures, and commerce at once began to decline — a decline which was soon accelerated by the terrible Napoleonic wars.

183. The Italian cities rapidly declined in wealth and commercial importance after the great geographical discoveries of the fifteenth century; but they still had their favorable situation in the Mediterranean, their splendid harbors, and their intrepid sailors. Consequently, some of them again built up a rather extensive trade during the seventeenth and eighteenth centuries. Venice was in some respects more favored than the rest. Early in the sixteenth century she recovered nearly all the territories she had lost, but for two centuries thereafter was obliged to wage almost continual warfare against the Turks. In these wars she was at first successful, and in the battle of Lepanto (1571) rendered a signal service to Christendom by checking the Turks most decisively and thus keeping them out of Europe. Later, however, she was less successful, and by 1715 all that she had left in Greece were the Ionian Islands and a few scraps of territory on the Albanian coast. But in spite of wars and territorial losses Venice was able to carry on quite an extensive commerce. She managed to retain valuable commercial privileges in the sultan's dominions, and thus took a prominent part in the trade of the Orient. Furthermore, her home territories were for the most part exempted from the ravages of war and were among the best cultivated regions in Europe. Many of her manufactures still retained their ancient reputation, —

her glasses, silks, goldsmith wares, and jewelry. Some of her subject cities in Italy, as, for example, Verona, Bergamo, and Brescia, were flourishing and fed her commerce with valuable products. Genoa also had an active merchant marine during the seventeenth and eighteenth centuries and was the chief center for the trade between Italy and France, a trade amounting to about \$9,000,000 annually during most of the eighteenth century. Some of the Italian states under Austrian and Bourbon domination made considerable economic progress during this period, as, for example, Tuscany under Leopold, and Naples under Charles VII.

184. Holland in the eighteenth century. We have already shown the exhausted condition of Holland at the close of the War of the Spanish Succession (1714), and have referred several times to her further commercial and industrial decline during the eighteenth century, in connection with the history of those countries which profited most at her expense, viz., England, France, Denmark, Sweden, and some of the German cities. The further development of Holland may better be traced in subsequent chapters.

185. Spain, the leading political and commercial power of the world during the sixteenth century, sank in the seventeenth century almost into a position of insignificance. Many of her richest possessions dropped away from her, and her industries and commerce were almost ruined by the expulsion of the Moriscos, the indolence of her people, her bad colonial policy, and other grave mistakes. The Treaty of Utrecht (1714) subjected her to the further loss of Gibraltar, Minorca, and the southern Netherlands. The "assiento" clause in this treaty gave England a virtual monopoly of the African slave trade in the Spanish American colonies, while the clause allowing the British the right of sending there each year one ship of six

hundred tons laden with merchandise was made the pretext for very extensive English smuggling, in which the Dutch and the French joined. In spite of all these adverse circumstances, however, there were several industrial and commercial revivals in Spain during the eighteenth century. The first change for the better came under the administration of Alberoni (1714-1719), who restored the Spanish navy and spared nothing which would develop industry and commerce. Just as soon as he was driven from power, however, Spain sank back into her former lethargy. About the middle of the century a more extensive revival occurred. The first notable sign of its appearance was the vigorous exercise of the "right of search" by the Spanish navy, in order to stop British abuses of the commercial clauses in the Treaty of Utrecht. The War of Jenkins' Ear which followed (1739-1744) terminated to the advantage of Spain and her commerce. After this war a considerable revival of industry and commerce began in the reign of Ferdinand VI (1746-1759) and culminated in that of Charles III (1759-1788). The neglected roads were improved and new ones laid out; canals were dug; vast tracts of sterile land were fertilized; German farmers were imported and better agricultural methods and implements introduced; the prohibition of the exportation of grain was removed; model farms were established; agricultural societies were created. At the same time the protective policy of Charles III, though excessive, revived old manufactures and stimulated new ones. Cadiz, which since the days of Alberoni had displaced its less favorably situated neighbor, Seville, now became the center of quite an extensive trade, especially with France and the Spanish colonies. The trade with France, for example, amounted in 1789 to about \$26,000,000, and it was primarily to preserve this trade that Godoy, "Prince of the Peace," a

little later so subserviently restored Louisiana to France at the dictation of Napoleon. The trade with the colonies increased from about \$8,500,000 in 1748 to \$22,000,000 in 1785, not counting the goods carried between Spain and her colonies by foreign vessels. This growth was favored (1) by opening the colonial trade to all Spaniards, (2) by allowing intercolonial trade, (3) by the establishment in 1764 of a regular monthly line of packets between Spain and the colonies, (4) by the rapid development of Cuba after 1763, owing to the introduction of the tobacco, sugar, and coffee industries, slave labor, and the immigration of French colonists from Santo Domingo after the insurrection in 1789.

The revival of Spanish industry and commerce did not long outlive the reign of Charles III. This was due chiefly to (1) a succession of incompetent rulers and ministers, (2) a bad colonial policy and the loss of all except a few of the American colonies early in the nineteenth century, (3) the inability of the Spanish people to apply themselves seriously and permanently to the development of their native resources. In short, the various revivals of the eighteenth century were wholly artificial, though temporarily quite successful.

186. Portugal, when she regained her independence in the middle of the seventeenth century, was only the shadow of her former self, her power in the East having been supplanted by the Dutch and English. By the opening of the eighteenth century her possessions in the East were reduced to Macao, Timor, Goa, Diu, and Damaun; at the close of that century the products brought by her from these possessions amounted to less than \$800,000 annually. In Brazil the situation was somewhat better. This province was recovered from the Dutch in 1654 and after that was developed quite rapidly. The importation into Portugal

of Brazilian sugar, coffee, tobacco, rice, cotton, dyewoods, indigo, and drugs increased to \$7,000,000 annually before the eighteenth century was very old; by 1730 the Brazilian gold mines, opened about 1700, were yielding about \$9,000,000 yearly; the sale of diamonds yielded about \$750,000 yearly to the crown; the African slave trade was still very profitable; the trade with the Azores and Madeira was quite important. But more and more, especially after the Methuen Treaty (1703), the commerce of Portugal fell into the hands of English merchants; Portugal and Brazil became commercial annexes of Great Britain. As a result, Portuguese products were excluded from their natural markets, Spain and France, by retaliatory duties, and Portuguese industries declined. Pombal (1750-1777) succeeded in diverting some of the Portuguese trade to France and in improving industry somewhat, especially the wine and fruit industries, which have ever since been the chief bases of Portuguese commerce. He was unable, however, to stimulate the carrying trade to any great extent.

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PART IV—THE AGE OF STEAM

CHAPTER XXI

INTRODUCTION

While we have already found some instances of quite remarkable commercial expansion in certain progressive countries, the commercial development of the world as a whole was comparatively slow up to the beginning of the Age of Steam. Of course all statistics of world trade prior to about 1840 are largely guesswork, but a sufficiently close approximation can be given to show fairly well the progress already made. It has been estimated that the total international trade of the commercial countries of the world in 1750 was about \$250,000,000, which was 100 % greater than in 1700. During the next fifty years there was nearly a sixfold increase, but this brought the total up to only 1.4 billions in 1800, a mere bagatelle compared with present figures. During the remainder of the Age of Steam, however, the growth was very great, bringing the total up to 10.6 billions in 1870. Per capita trade did not increase as rapidly as total trade, but it rose from \$2 31 in 1800 to \$8 14 in 1870. Moreover, it must be remembered that these figures include all the backward nations. As we shall see in subsequent chapters, the development of the more progressive nations was much more rapid than the average growth.

This rapid growth of international trade was caused largely (1) by numerous technical improvements in manufacturing, (2) by great developments in the means of transportation and communication. The chief basis of all the most important technical progress in manufactures and transportation was the increased production and use of coal. In 1800 the world mined 11,600,000 tons; in 1870, 230,400,000. Moreover, the improvements in the steam engine were so great that each ton of coal could produce about three times as much steam power as in 1800, thus making the potential increase in the world's power over fiftyfold. Most of the increased output of coal was used for generating steam power, but a steadily increasing amount was also used for smelting, notably in the iron and chemical industries. We thus see how dependent upon coal modern industry was becoming during the Age of Steam; it was to become even more so in the next period. Accompanying the increased use of coal and the great improvements in steam engines, there were innumerable improvements in machinery and processes, which not only revolutionized most old industries, but created many new ones. In many manufactures machinery increased human productivity a hundredfold; in some lines, one to several thousand times. Machines also effect great economies in the use of many raw materials. Hence the increased use of machinery greatly reduced the average cost of production, at the same time increasing wages. The increasing importance of the iron industry should be emphasized. As a result of improvements in blast-furnace construction and practice, and the increased supply of suitable fuel, the world's pig-iron output rose from 400,000 tons in 1800 to 11,900,000 in 1870. Prior to 1800 the scarcity and high price of iron was one of the chief obstacles to industrial progress, but during the Age of Steam, especially

after 1830, iron superseded wood for many basically important structural purposes, such as the making of engines, locomotives, machines, tools, agricultural implements, vehicles, rails, piping, and (toward the close of the period) ships. Steel, however, remained relatively scarce and expensive, and therefore unimportant. Even in 1860 the world's output was less than 200,000 tons, and there was no great increase until the next period. Very little of this steel cost less than \$100, and much of it \$250 to \$300, a ton to produce, a cost prohibiting its extensive use for anything but cutlery and certain tools.

It was during the Age of Steam that western Europe, following the example of England and the teachings of Telford and Macadam, built most of the splendid roads which have ever since been admired by all observers. This period also witnessed the building of many canals, and great improvements in river navigation. Even for some time after railroads began to be built, few people believed that they could successfully compete with rivers and canals in the carriage of ordinary freight. This partly explains the slowness of railroad building at first. Beginning with 200 miles in 1830, the world's mileage in 1850 was still only 23,900 miles. But gradually better roadbeds, rails, and terminal facilities, more powerful locomotives, and larger cars made railroads more potent in industrial and commercial development. This increased efficiency led to a rapid extension of the world's mileage after 1850; by 1870 it was 139,800 miles, and canals had already become relatively less important. But the greatest railroad development was to come in the next period, when steel became cheap.

The Age of Steam was also marked by great changes in ocean navigation. First came a great improvement in the construction of wooden sailing vessels. In this the

United States took the lead. For many years her graceful clippers were by far the largest and fastest ships afloat. But gradually other leading countries replaced their small, clumsy, and slow vessels with larger, less unwieldy, and faster ones. Another great change was the gradual substitution of steamers for sailing vessels. At first steamers were used chiefly for inland navigation; they played a very important part in the early development of the Mississippi Valley and, a little later, in the development of Europe, especially Germany. In 1833 the *Royal William*, a Canadian boat, crossed the Atlantic wholly by steam power. The second steamer to cross without recoaling was the *Great Western* in 1838. Even then, however, regular ocean trips by steamers were considered wholly impracticable. It was not until about 1850 that ocean steam navigation became really important, up to that time most of the world's steam tonnage was used in inland navigation and the coasting trade. The use of iron for building ships was at first considered even more chimerical than the use of steamers for regular ocean navigation. Some even thought iron ships would sink, but the high cost, the derangement of the compass, and the fouling of the ship's bottom were considered more serious objections. As it turned out, however, iron ships were found to be more buoyant than wooden vessels, drawing less water and carrying more cargo with a given tonnage. For various reasons they were also cheaper in the long run. They are more durable, less likely to be destroyed by fire, and can be built much larger than wooden ships, thus greatly reducing the cost per ton. Furthermore, as the price of iron fell and that of timber rose, iron ships became relatively still cheaper. Fairly satisfactory remedies were found for the derangement of the compass, and the fouling of the bottom has proved to be less serious than

at first supposed. It was not strange, therefore, that iron should be used more and more extensively after 1850 in the construction of both steamers and sailing vessels. The further improvements made possible by cheap steel belong to the next period. Although there have been many improvements both in the construction and in the management of sailing vessels, they began to lose their relative share of the world's ocean carriage before the close of the Age of Steam, chiefly because of their comparative slowness and their dependence upon favorable winds. Starting with 4,000,000 tons in 1800, the world's registered sailing tonnage rose to 11,400,000 in 1850, reached its maximum, 14,800,000, in 1860, and dropped to 12,900,000 in 1870. On the other hand, the world's steam tonnage increased steadily from the start, and after a short time quite rapidly. Starting with only 20,000 tons in 1820, it reached 800,000 in 1850, and rose to 3,000,000 in 1870, an increase of 275 % between the latter two dates, as compared with only 13 % in the case of sailing vessels.

These great improvements in inland and ocean transportation made freight rates not only much lower but also much more stable. The greater speed and dependability of transportation also made it unnecessary for merchants to carry such large stocks of goods as formerly, while their stocks in transit also became relatively smaller; this meant a great saving of capital. Moreover, there was a great change in the relative importance of the leading wares of commerce. Previously these were chiefly textiles, colonial products, and such raw materials as would pay for their long-distance carriage. Now many bulky products, which formerly would not pay for their carriage, became the great staples of international trade: crude iron and steel, iron and steel manufactures, coal, iron ore, copper, grains, flour, meat animals, etc. At the same time many bulky

products, which formerly had been carried only short distances or in small quantities, were now carried from the farthest parts of the world in ever-increasing quantities: wool, cotton, flax, timber, etc. A little later the introduction of refrigeration was to add a new list of bulky and perishable products to the world's important commercial wares: fresh meat, dairy products, vegetables, fruits, etc. The improvements in transportation also led to much cheaper and more efficient postal services in all leading nations. The high postal rates prevailing up to this time had been a very serious hindrance to business development, but the introduction of the penny post in the United Kingdom by Rowland Hill (1839), and similar reductions a little later in other countries, gave a great additional impetus to commerce and industry. These reductions in rates were immediately reflected in a much more extensive use of the mails. For example, in the United Kingdom the number of letters per capita sent annually increased from 3 in 1839 to 7 in 1840, and to 28 in 1872. A very large part of this increase was for business purposes. The electric telegraph was also introduced quite generally during the latter part of this period, and was almost immediately put to various practical uses, especially in regulating railway train service, but it had no great direct effect upon general business development until the next period.

(3) **More efficient industrial and commercial organization** was another important cause of the rapid growth of trade during the Age of Steam. Some of the most notable improvements in organization were (a) a great extension of the corporate form of organization, especially in manufacturing and transportation, with its many advantages over partnerships and single proprietorships; (b) the growth of stock exchanges, which greatly aided the raising of capital

for industrial and transportation companies and some large mercantile companies, and performed other valuable functions; (*c*) the development of a class of wholesale specialists, commission men, forwarders, warehousemen, brokers, and agents of many kinds; (*d*) the growth of exchange trading in many commodities permitting accurate grading; (*e*) the growth of speculation in these commodities, which aided producers, distributors, and consumers in various ways; (*f*) the tremendous extension of banking and its much greater effectiveness in aiding production and distribution; (*g*) the marvelous growth of various forms of insurance; (*h*) the economizing of mercantile capital by quick "turnovers"; (*i*) mercantile agencies and other aids in the safe extension of credit; (*j*) industrial specialization and better factory and sales organizations; (*k*) national and international expositions, and museums of industry, commerce, and art. Most of these improvements did not reach their fullest development until the next period, but all of them were increasingly important factors in the rapid commercial and industrial growth of the latter part of the Age of Steam. The student should make a careful study of the development and influence of each of these improvements.

Other important factors in the growth of trade during this period were (4) the comparative freedom from wars after 1815; (5) the removal (after the French Revolution), by various European states, of many remnants of feudalism, which had impeded both foreign and internal trade; (6) lower customs duties in various countries, with a strong tendency toward free trade in the latter part of the period; (7) a more enlightened colonial policy in some nations, with a corresponding growth of colonial industries and commerce; (8) a tremendous increase in the world's agricultural production, especially in newer

countries (though there was far less technical progress in agriculture than in manufactures and mining). The influence of these factors may best be studied in connection with the commercial development of individual countries.

General references · European commerce during Age of Steam.—*Andrews*, Historical Development of Modern Europe, *Beer*, Gesch, III, IV, *Bucher*, Indus Evol, *Cambridge Modern History*, VIII–XI, *Cons*, Précis, II, *Cunningham*, West Civiliz, *Heyd*, Levantehandels, II, *Homans*, Cyclop, *M'Culloch*, Dictionary, *Macgregor*, Commercial Statistics, *Macpherson*, Annals, *Mahan*, Sea Power, *Mayn*, Lehrbuch, *Noel*, II, *Rand*, Economic History since 1763, *Robinson*, History of Western Europe, *Roscher*, System, III, *Schmoller's Jahrbuch*, *Seignobos*, Political History of Europe since 1814, *Thatcher and Schwill*, Gen Hist Eur, *Ure*, Dictionary of Manufactures, *Wilson*, Resources of Modern Countries. Most of these references can be used advantageously throughout the period, in addition to those given in each chapter. References covering the topics in Chapter XXI will be found in Chapter XXIX.

CHAPTER XXII

THE ENGLISH INDUSTRIAL REVOLUTION

187. Three important economic revolutions occurred in England during the eighteenth century, — a commercial, an agricultural, and an industrial revolution. The first two began in the latter part of the seventeenth century, continued through the eighteenth, and overlapped the nineteenth; the third, which we are to consider in this chapter, began late in the eighteenth century and extended far into the nineteenth. The revolution in English commerce has already been traced as far as the close of the American Revolution, and will be continued in the next chapter. Before considering the third, a word must be said concerning the second.

188. The agricultural revolution. The present English land system is usually regarded as a survival of the Middle Ages, but this view is incorrect. The abuses of this system do not date so far back; they originated in the agricultural revolution of the eighteenth century. Until the latter part of the seventeenth century the small farmers remained an important factor in English agriculture, but from that time they declined rapidly, and throughout the eighteenth century the land of England was more and more slipping into the hands of a haughty and powerful aristocracy. This aristocracy was composed of such members of the old landholding nobility as were able to retain and extend their ancient domains, and of the wealthier merchants, who riveted their increasing power by buying land, then the surest key with which to open the door to all social and political

privileges. Late in the eighteenth century the wealthier manufacturers also entered the lists to secure as much of this kind of property as possible. They were not only actuated by the desire to get land, but also wanted to swell the crowd of cheap laborers in the cities by forcing to the wall as many small farmers as possible. The aristocracy acquired their land at that time chiefly in two ways: (1) by buying out the small farmers, and (2) by inclosing the numerous commons, or waste lands, then existing in nearly all parts of England. Many small farmers were either obliged to sell their holdings under foreclosure, or were willing to do so because it did not pay to farm them under the old system of cultivation, and they had not enough capital to introduce the new system. Throughout the eighteenth century, therefore, and even in the nineteenth, this class in England was selling out and going either to the growing cities or to the colonies, where better opportunities seemed to be afforded. The process of inclosing also went on rapidly, especially during the latter half of the eighteenth century and the first half of the nineteenth. Between 1700 and 1759, 244 inclosure acts fenced in 333,877 acres, between 1760 and 1839, 6,955,830 acres were inclosed by 3801 acts. As might be expected, the wealthy classes profited chiefly by these inclosures, while the small farmers were often evicted unfairly and suffered very greatly. The burdens of such small farmers as were not driven from their holdings in either of the above ways were greatly increased by the heavy taxes resulting from the Napoleonic wars. On the other hand, this consolidation of farm lands into larger estates led to a much better system of farming through the application of sufficient capital. The growth of population increased the demand for wool, grains, mutton and other meats, and this demand led the new class of capitalistic farmers to

adopt a more intensive system of cultivation, suppress fallow lands, sow the cleared lands with fodder, fertilize more, practice reasonable rotations of crops, and introduce better tools and machinery. A great increase in the production and profits of the land resulted from these improved methods. The annual production of wool, for example, increased from \$10,000,000 in 1700 to \$15,000,000 in 1741. Although wool was still "king," there was also a great increase in other agricultural products. The cultivation of turnips and artificial grasses increased the supply of winter food for stock, and thus increased the number and improved the quality of sheep, cattle, and horses. There was also a considerable increase in the quantity of grains produced.

Although the new agricultural knowledge and new methods were gradually diffused among the small farmers who retained their holdings, and although they were benefited by the increased profits from farming, it was the large landholders who profited most. Rents rose rapidly: in 1750 the average rent was about \$1.75 per acre; in 1770, \$2.50; in 1812, \$12, and in some sections, \$17.50. At the same time the prices of most articles used by rich landowners decreased. The political power of the landlords also increased. The political changes of 1688 had benefited them chiefly, and throughout the eighteenth century they were becoming more and more powerful: they held all the offices; they controlled, by bribery or high property qualifications, the House of Commons, which was rapidly becoming omnipotent; they were socially supreme. Thus the agricultural revolution, while benefiting England greatly by increasing her supply of food and raw materials, caused serious temporary suffering among large numbers of her people. Just so the industrial revolution, while conferring great benefits upon England, and while giving

her a great advantage in the markets of the world, caused, as we shall presently see, untold temporary suffering. From another point of view, however, the industrial revolution, by creating a class of wealthy manufacturers and by increasing the wealth of the merchant princes, destroyed the monopolistic grip of the landholding oligarchy upon the government of England, which the agricultural revolution had tightened almost beyond endurance.

189. English manufactures continued to develop during the first three quarters of the eighteenth century. The annual output of various woolen goods, which were still the chief manufactured products, increased from \$40,000,000 to \$65,000,000. The more general substitution of coal and coke for charcoal in smelting after 1740, and Henry Cort's new puddling process, discovered a little later (improved still later by Joseph Hall), reduced the cost of making pig and bar iron, and the output increased from 17,000 tons in 1740 to 68,000 in 1788. This led to an increased production of coal. The salt mines of Cheshire were also worked quite extensively. The shipbuilding industry was important. England also manufactured considerable quantities of glass, hardware, beer, bricks, tiles, coarse potteries, and smaller quantities of silks, linens, paper, and other articles. But she was still mainly an agricultural nation at the beginning of the Age of Steam. Her cotton industry, which was to become her mainstay, was only in its infancy. One great change in English manufactures, however, had already occurred. While guilds still persisted, they had lost their former power, and the most important industries had passed into the "domestic" stage. Manufacturing was still done by artisans at home with their own tools, but the ownership of the raw materials had passed from the artisans to their capitalist employers, who took all the risks of production. This change was a necessary

antecedent of the great industrial revolution of the nineteenth century. Many machines had already been invented which might have greatly improved various manufactures, but the guilds had opposed all innovations, while independent artisans lacked the capital and the initiative to avail themselves of the inventions, which thus sank into oblivion. It was not so with the great textile inventions made in England during the latter part of the eighteenth century, which were eagerly taken up by the more progressive members of the new class of employers and quickly made successful.

190. The great textile inventions just referred to were Hargreaves's spinning jenny (patented 1770), Arkwright's roller spinning frame (1769), Crompton's mule (1779), which combined the main features of the first two and soon superseded them, Kelly's self-acting mule (1792), which was subsequently improved by Roberts but not used extensively before 1825, Kay's fly-shuttle (1773), and Cartwright's power loom (1785). The exact nature of the improvements effected by each of these machines should be carefully studied.

191. The invention of the steam engine by James Watt (1769) was the link which completed the magic chain of development. It was first used in mining, but in 1785 it was applied to cotton spinning in some of the new Nottinghamshire factories, and after that its use was extended so rapidly that King Wool was dethroned by King Cotton. British imports of raw cotton rose from 1,000,000 lb. in 1760 to 56,000,000 in 1800 and to 400,000,000 in 1840, when the consumption of wool was only 200,000,000 lb. During this period many improvements were also made in carding, weaving, printing, dyeing, bleaching, etc., all of which greatly aided the development of British textile manufactures.

192. The mining and iron industries were also revolutionized. Steam engines were introduced into the mines for pumping water, sinking shafts, hauling up the coal and ore, and for various other uses. In 1788 the system of steam blasts was discovered; in 1829, Neilson's hot-air blast. These improvements, coupled with the great demand for iron in making the new machinery and for coal in smelting, led to a rapid development of mining and iron manufacturing. The output of iron was 125,000 tons in 1796 and continued to increase rapidly thereafter. Larger blast furnaces and more powerful blowing engines were used, and other improvements followed. Staffordshire became the leading iron district in the world, but yielded supremacy to the Middlesborough district when Bessemer's invention of a new and much cheaper process of making steel came into use (1856). By this process a hot-air blast is forced through molten pig iron with enough power to permeate every particle, thus burning out all of the carbon and most of the other impurities in the pig iron, and then just enough carbon to make steel is put back into the molten mass by means of a recarburizing agent. As the converter in which this is done holds a large quantity, and the complete process requires only about fifteen minutes, the cost of production is very much less than by the older cementation and crucible processes. Moreover, England's ores being well adapted to making steel by the Bessemer process, she thus gained a great advantage over Germany, whose phosphorus ores were not made available for modern steel production until Sidney Thomas invented the basic process some years later.

193. The growth of factories. The system of "domestic manufactures" prevailed in England until near the close of the eighteenth century, but after that the "factory system" developed rapidly. As long as water power was

used, the crowding of laborers was not necessary, but steam power could be used advantageously only by centralizing large numbers of laborers and machines in one spot. The various economies in administration and management made possible by centralization also favored the rapid substitution of factories for domestic manufactures. At first the new system was employed chiefly in the spinning of cotton and woolen yarn; by the earlier part of the nineteenth century machinery and the factory system were used in many branches of spinning. But machinery was also gradually introduced, even before the close of the eighteenth century, into cotton, woolen, and linen weaving, lace making, calico printing, and other manufacturing processes. It was not until about 1830, however, that weaving machines seriously threatened the former hand looms. Kay's flying shuttle, invented in 1738, had enabled hand weavers to weave much more quickly than before, while hand spinners could not supply them with a sufficient amount of yarn, hand weaving, therefore, was more slowly supplanted by machinery than hand spinning. But there was a tendency, as soon as spinning factories were established, for the weavers to collect around the new mills, where yarn could be secured for weaving much more advantageously than by depending on the hand-spun yarn formerly produced by their wives and children. Gradually, therefore, in one locality after another, and in one industry at a time, machinery and the factory system almost entirely supplanted the former domestic system.

194. The growth of the factory system of manufactures, together with the rapid development of commerce, caused a great increase and an important shifting of population. Before 1750 the largest decennial increase had been about six per cent, but during the last decade of the eighteenth century it was fourteen per cent, and during the first

decade of the nineteenth it was nearly twenty-two per cent. The total population in 1760 had been seven million; in 1821 it was twelve million. This increase was almost entirely in the manufacturing districts, especially in Lancashire, Yorkshire, and parts of Nottinghamshire and Staffordshire. Northern England, therefore, grew very rapidly, while the west grew more slowly and the eastern counties declined. As would be expected also, the urban population increased much more rapidly than the agricultural population, especially in the north. The older cities like Bristol, Norwich, York, and Exeter grew, but much more slowly than the new manufacturing cities in the coal section. The population of Liverpool increased from four thousand in 1685 to forty thousand in 1760, to seventy-eight thousand in 1801, to two hundred and twenty-eight thousand in 1841; that of Manchester was six thousand, forty-five thousand, ninety thousand, and three hundred thousand in the corresponding years. Birmingham and Sheffield, which were smaller than Manchester in 1685, reached thirty thousand in 1760, and increased to seventy-four thousand and forty-six thousand respectively in 1801. Thus a new England was added in the north to the old one in the south.

195. Evil results of the factory system. Just as the capitalist farmers profited chiefly by the agricultural revolution, so the new class of capitalist manufacturers received the lion's share of the benefits derived from the industrial revolution, while the laboring population was for a time seriously injured in many ways by the introduction of machinery and the factory system. For one thing, the new machinery inevitably threw many men out of employment. Then, too, women and children were employed in large numbers in the factories, as they tended the machines just as well as men and at lower wages. Thus wholesale

employment of women and children in numerous factories soon gave rise to frightful conditions. Both sexes, among adults and children, were thrown together in some shops under no moral control whatever. Few arrangements were made in these shops for the preservation of health, comfort, or even of decency. There was no legislation to protect laborers from being worked too many hours or for insuring proper conditions for their labor. The women and girls who worked in the factories lost their knowledge of even ordinary household duties, and this led to filthy houses, ragged clothes, poor cookery, and consequent disease and increased poverty. In those sections where machinery was most suddenly and generally introduced, the dissatisfaction of the laborers broke out into riots; and this was not to be wondered at, because they necessarily saw only the present disadvantages of the factory system and not its ultimate advantages even for them. The most famous riots of this sort were the Luddite riots in 1812, which broke out again in 1816, in which much machinery in Nottinghamshire and the Midland Counties was destroyed. In 1826 there were extensive riots in Lancashire for the purpose of destroying the power looms. There were numerous other riots and outrages in many parts of England, but it is worth noting that the agitation for the Reform Bill in 1832 caused more riots and violence than the introduction of machinery. And at the same time we should remember that the former domestic system of manufactures had its evils. Not all master craftsmen had been kind, and that system afforded endless opportunities for petty tyranny. Furthermore, while many of the earlier factory employees and managers were doubtless cruel and harsh in the extreme and utterly unfit for the responsibilities of their new positions, others, like David Dale and Robert Owen, for example, took great interest in their

employees. The worst evils of the factory system were undoubtedly, from first to last, connected with the small mills rather than the large ones.

196. The apprentice system and its attendant evils. In the earlier stages of the factory system before the wages of workmen were lowered to the starvation level, they would not consent to the employment of their wives and children in the factories. This led to the practice of employers "apprenticing" paupers from the numerous parish workhouses throughout England. These pauper apprentices practically became the slaves of their manufacturer owners, and there soon grew up a regular class of white-slave dealers who made a business of securing paupers from all the parishes of England. These cruel dealers took their victims to the manufacturing districts and herded them in damp cellars until sold at a bargain to the manufacturers. Here they were put up at auction, subjected to indecent physical examination, and sold to the highest bidder, just as blacks were sold in the Southern States of the United States before the Civil War. These white slaves in England, however, were so cheap that it was not worth while for their owners to feed, clothe, and house them properly. They were fed on the same kind of food that was served to the pigs; they were herded together at night in miserably wretched, filthy hovels, regardless of sex, thus breeding both vice and misery. Those who were the least bit intractable, even among the women and girls, were frequently and heavily chained while at work. They were overworked to the very verge of human endurance and submitted to cruel punishments for the slightest offences. Very small children, from six to twelve years of age, were often worked sixteen hours per day. Such, in brief, was the apprentice system, developed during the early stages of the industrial revolution,

and this system unfortunately endured far too late into the nineteenth century. From the pauper children and women of the parish workhouses, the curse of long hours, cruel treatment, starvation wages, and unsanitary conditions spread to the labor of all women and children employed in factories, with the terrible results of physical deterioration in the population and the rapid growth of vice.

197. Low wages and expensive wheat. During the latter half of the eighteenth century the bad harvests and the Corn Laws made the price of wheat very high. After 1790 it was hardly ever below \$1.60 per bushel, and often double that price. In 1795 it rose to \$3.40 per bushel, and in 1812 to \$3.83. At the same time the wages of laborers kept decreasing. The heavy taxes caused by the great continental war led the manufacturers and landlords to squeeze compensation for these taxes out of their employees by lowering their wages. The legal restrictions upon the migration of laborers from one part of the country to another, and the combination laws forbidding workmen to combine to raise their wages or shorten their hours of labor, were also important causes of the decrease in wages. The following comparison of weavers' wages with the current price of wheat will give some idea of the workingman's condition; in 1802 the average weekly wages of weavers was \$3.38; in 1806, \$2.63; in 1812, \$1 55; in 1816, \$1 30; in 1817, \$1.02. The price of wheat per bushel in the corresponding years was \$2 11, \$2.39, \$3 83, \$2 38, and \$3.

198. Another very important factor in the industrial revolution was the great improvement in the means of transit during the latter part of the eighteenth century. Although the difficulties of traveling and carting in England prior to the nineteenth century have been greatly exaggerated by many writers, there was certainly a great chance for improvement at the beginning of the new manufacturing

period. Most of the roads had been allowed to wear out without repair, and the pack horse was about the only means of transportation. Under the impulse of the rapid growth of manufactures and commerce many new turnpikes were built, and tolls levied upon them under the authority of various acts of Parliament. Old roads were repaired and improved methods of road building introduced.¹ But these roads were not sufficient to meet the growing demands of traffic. Consequently, enterprising manufacturers and merchants successfully applied themselves to the problem of improving water transportation. Brindley's successful completion of the Bridgewater Canal in 1761 proved contagious. This canal, running from the duke of Bridgewater's mines at Worsley to Manchester, although only seven miles long, was a triumph of engineering skill on account of the extensive tunneling through rock and the other physical difficulties encountered. Other canals soon followed. In 1777 the Grand Trunk Canal, ninety-six miles long, connecting the rivers Trent and Mersey, was completed; other canals connected Hull with Liverpool and both with Bristol. In 1792 the Grand Junction Canal, ninety miles long, connected London with Oxford and other important towns in the Midlands. It is very evident that this growth of canals and turnpikes greatly facilitated the development of the industrial revolution.

199. Thirty years of industrial and commercial progress (1763-1793). As we have seen, the Treaty of Paris (1763) cleared the way for an onward march of English industry and commerce, and the thirty years following this treaty was a period of almost uninterrupted progress. England's greatest commercial rival, France, had lost her power in India and America; Germany was torn asunder by the

¹ The name of John L. Macadam, 1756-1836, is associated with these improved methods

struggles between Austria and Prussia and unable to seriously compete with England; Holland, the victim of internal dissensions and unfortunate foreign interference, was only a shadow of her former self; Spain, the ally of France in the Seven Years' War, had also lost her place as a rival of England in foreign trade; the other commercial countries of Europe — Sweden, Norway, Russia, and Italy — were not for a moment to be considered in the same class as England. By a fortunate coincidence it was just at this moment that the new inventions and discoveries began to appear that were to revolutionize English industries, and eagerly did English enterprise enter into a new race for wealth and commercial monopoly. It was in many ways unfortunate for England that she soon lost most of her colonies in America by a combination of unwise policy, misinformation on the part of her American officials as to the nature and extent of the revolt, and other adverse circumstances; but it must not be forgotten that England soon after found great compensations for her loss. The new nation in America prospered and grew rapidly, and, being for a long time chiefly an agricultural nation, served as a splendid feeder for the expanding manufactures of England. At the same time India was now rapidly developed into another great outlet, and England was able to obtain several important markets farther east which had hitherto been monopolized by Holland. Furthermore, the war for American independence did not seriously interrupt the steady and rapid development of English home industries caused by the fortunate combination of inventions, discoveries, and transit improvements already noted. This industrial development was clearly revealed in the increase of England's foreign trade during the decade following the war for American independence. In 1782 her imports were about \$51,250,000 and her exports a little more than

\$65,000,000. By 1792 these figures had been nearly doubled; the imports were about \$100,000,000 and the exports were nearly \$125,000,000. Similarly, England's shipping trade was doubled in the same period. Especially noteworthy was the increase of trade with her old rival, France, owing to the conclusion of the commercial treaty in 1786. From 1783 to 1786 England's exports to France had not averaged \$2,000,000 per year, but from 1786 to 1793 they averaged more than \$5,000,000. As already intimated, another notable increase was England's American trade. From 1763 to 1773 the average exports to the continental American colonies had been about \$10,000,000; in 1792 the exports to the United States were over \$20,000,000. The West Indian trade had also steadily increased; in 1792 the exports to these colonies rose to \$10,000,000, and the imports from them to \$20,000,000. The fishing industry was also rapidly increasing in importance, especially the herring fisheries in the North Sea, the cod fisheries off Newfoundland, and the whale fisheries in the Arctic and South seas. Furthermore, during this decade England's trade with every European country and many others increased greatly, with the exception of Spain and the Canaries.

200. The French Revolution and the outbreak of the great continental war. In the midst of this remarkable progress, while every resource of England was marshaled in a vast army moving to the conquest of the world's markets, came, like a thunderclap, the news of the outbreak of the French Revolution, portending the awful storm of the great continental war that was to follow. At first this revolution was generally welcomed in England, because the nature of the movement was entirely misunderstood. Statesmen like the enthusiastic and impulsive Fox gloried in it. On the other hand, Burke cried it down in his

famous *Reflections* and said his dying words would be, "Fly from the French Revolution." Between the two stood Pitt, who was chiefly anxious for peace. For the sake of peace he was willing to overlook many French provocations, the threats and boasts of the Girondists, the early massacres of the mob, while Burke, in 1792, wanted England to join the allies. Pitt did not even find a cause for war in the French conquest of Savoy, Nice, and the Austrian Netherlands, and decreased the English army and navy. When, however, the French gave a special challenge to England by throwing open the navigation of the Scheldt to all nations and by besieging Antwerp, he remonstrated, and took his stand in resisting the threatened invasion of the Dutch Netherlands. Finally, France took the initiative, and Feb. 1, 1793, declared war against England and her ally, Holland. Pitt was finally forced into war by the capitalists and merchants, who feared that the conquests of the French Republic might help France to recover her former position as the most formidable rival of England in the world's markets. This fear, more than the invasion of Holland by France, was the real cause that led England into the war, and commercial considerations remained, throughout the long struggle that followed, the dominant ones, before which others, important as some of them were, paled almost into insignificance.

201. The commercial crises of the war. In the meantime, before the declaration of the war between England and France, a severe commercial crisis fell upon England in the winter and spring of 1792-1793. The rapid extension of commerce, especially during the decade 1782-1792, had caused many private and provincial banks to make an overissue of notes. This overissue, together with the unsettled conditions in Europe caused by the outbreak of the French Revolution, compelled nearly one third of these

banks to stop payment, and this led to a large number of bankruptcies and finally a general commercial panic. Another important cause for the panic was the exceedingly bad harvest in England in 1792, which forced farmers to draw heavily on the local banks and necessitated the export of considerable specie to pay for foreign wheat. It is needless to say that the declaration of war made the crisis more severe and led to further bankruptcies. The war from beginning to end cost England about \$4,155,000,000. In spite of a heavy income tax and increased duties on articles of almost every description, the government was obliged to resort to numerous disadvantageous loans which added more than \$3,000,000,000 to the national debt. Of course this heavy strain on the resources of the country led to several serious commercial crises, and from 1797 to 1817 even the Bank of England refused to cash its own notes.

202. Growth of English industry and commerce during the war. But severe as was the financial strain upon England during this long war, and great as was the suffering among the working classes, who felt it most, her manufactures and commerce continued to prosper during this very period. The war removed a great deal of competition by checking the manufactures of the continent, while the increased supply of coal and iron and the new machinery gave a sudden impulse to English industries. England, therefore, during the continental war was able to build up a monopoly in many important manufactures and to increase her exports quite rapidly. Her exports naturally fell off somewhat during the first year of the war, but they quickly rose again and soon surpassed all previous records; they increased from \$85,000,000 in 1793 to \$170,000,000 in 1800, and to \$290,000,000 in 1815. It was the wealth derived from this rapid increase of foreign trade that enabled England

to endure so long a war with Napoleon, and in this way the industrial revolution proved her salvation by helping build up a monopoly of the world's trade during this critical period. Some of the important stages in the development of this trade, as well as the commercial policy of England's statesmen during the great continental war, appear in the next chapter.

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CHAPTER XXIII

THE FRENCH REVOLUTION AND THE GREAT CONTINENTAL WAR

203. The recovery of France after the Seven Years' War was surprisingly rapid. For several years she devoted herself almost uninterruptedly to industry and trade with great success. In the American Revolution she was able, as we have seen, to take revenge upon England, and after that war her manufactures and commerce continued to make astonishing progress until rudely checked by the outbreak of her own revolution. The new French East India Company, created in 1785, exported nearly \$3,000,000 worth of French merchandise the first year of its existence, and this increased to \$7,000,000 in 1791. Most of these exports were manufactures sent to China, Mauritius, and Bourbon. The trade with India did not increase so rapidly, but that with Africa and the West Indies was very prosperous. In 1789 French vessels exported three hundred thousand negroes from Africa, valued at over \$3,000,000; the total trade of the French colonies in that year was valued at \$120,000,000, as compared with \$90,000,000 in the case of the British colonies. In 1788 the French colonies sent to France alone products worth \$44,000,000, chiefly sugar, cotton, indigo, and coffee; the French exports to these colonies were worth about \$16,000,000. Thus, in spite of territorial losses, France was again rapidly developing her industries and extending her commerce.

204. The commercial treaty with England in 1786, which reciprocally lowered the duties in each country on many

products of the other, was believed by its friends to be a bond which would draw the two rival nations into more friendly relations with mutual advantage; but it proved to be only a brief truce in the long commercial struggle between the two countries. The treaty was never popular in any part of France except the wine-growing south, and when the manufacturers of the north obtained control of the government they quickly abrogated the treaty, substituted successively higher protective tariffs (1791-1793), and finally declared war against England.

205. Prosperity during the first years of the Revolution.

For a time, after the meeting of the States-General in 1789, France continued to prosper. The removal of the feudal obligations greatly improved the French land system; the transformation of many common lands into personal property, and the secularization of church property, increased the number of private holdings to at least one hundred thousand; these changes, together with the strong demand and high prices for grain, greatly aided the farmers. The removal of the internal customs duties (Oct. 30, 1790) was another important reform. The protective tariffs of 1791, 1792, and 1793 temporarily benefited French manufactures; for a time they developed quite rapidly in spite of internal troubles, the continuous emigration from the country, and other adverse circumstances. Foreign trade also continued to increase for a little while. During the first half of the year 1790 the exports amounted to about \$76,000,000 and the imports to \$45,000,000.

206. One of the leading aims of the Convention in its declaration of war against England (February, 1793) was to shut that country out of the markets of Spain, Portugal, and Asia and open them to France. The Jacobins, who controlled this body, believed that England's wealth was vulnerable because based chiefly on foreign commerce. This

belief and the faith in the more compact and solid industrial strength of France led them to think that war would ruin England's wealth. Their mistake was in thinking England's wealth solely dependent on foreign trade; they overlooked the great agricultural and industrial development that had been going on in that island. They did not foresee that the English industrial revolution and their own unwise measures would enable English manufacturers to undersell French manufacturers in other countries and even in France, and that English merchants would flood the continent, in spite of war, with large quantities of cottons, muslins, woolens, hardware, etc., which, on account of their small bulk, could easily be smuggled.

207. The decline after the outbreak of war was very rapid. Not only the taxes, losses of property, and draining of the labor supply, produced by the war, but other important causes contributed to this decline. The continued emigration of the nobles removed many of the best customers of French manufacturers and large amounts of capital that had hitherto been employed in various industrial enterprises. The rapid depreciation of the assignats checked trade. The constant increase in the number of idlers, especially in Paris and other cities, who were fed at public expense was another important cause, as well as a result, of the industrial decline.

208. The harmful socialistic laws of the Convention, which were passed under the pressure of the ignorant mob in the galleries and around the clubs, also seriously crippled industry and commerce, and increased the very difficulties they were intended to alleviate. Three laws, more iniquitous than the rest, deserve special mention: (1) the Law against Monopolies (May, 1793); (2) the Law of Maximum (Sept. 29, 1793); and (3) the Table of Maximum (1794). The first of these laws compelled grain merchants to state publicly the quantity of grain possessed by them, forbade

them to sell it elsewhere than in the public markets, and required them to sell it there at a maximum price, which was to decrease from month to month. By a supplementary law (September 4), the uniform price for all France was fixed at fourteen livres per hundredweight. The Law of Maximum arbitrarily fixed the price at which the following articles were to be sold: fresh and salted meat, salt fish, cattle, salt, lard, butter, sweet oil, sugar, honey, soda, cabbages, tobacco, wine, brandy, vinegar, cider, beer, candles, combustible oil, firewood, coal, soap, potash, paper; woollens, linens, and other cloths; wooden and leather shoes; iron, bronze, lead, steel, copper, wool, flax, hemp, and other raw materials for manufactures. The difficulty of enforcing a uniform price for these articles in the different departments of France led the Convention in 1794 to decree the Table of Maximum. This decree tabulated the value of each article in the place of its production; to this value was added five per cent for wholesalers' profits, five per cent for retailers' profits, and a fixed price per pound for transportation; this total was the maximum price allowed by the Convention. But although those who tried to evade the law were declared "suspects" and made liable to be fined, imprisoned, or to have their booths closed, it was found impossible to enforce this drastic socialistic measure. The enforcement of these maximum prices was made more difficult by the overissue of assignats, the speculation in them, the almost daily variation in their value, and their final depreciation to the point of utter worthlessness. By October, 1795, the assignats in circulation amounted nominally to nearly \$9,000,000,000, and so great was their depreciation that a small quantity of firewood cost nearly \$5000. In the meantime, however, the Law of Maximum was repealed, Dec. 23, 1794; but the industrial and commercial disorder caused by its attempted enforcement was not healed by its repeal.

209. Continued decline under the Directory. When the Directory came into power, Oct. 27, 1795, they found the treasury empty, the assignats fallen into complete discredit, the army unpaid and without supplies, the people without food, and industry and commerce paralyzed. Unfortunately, they were unable materially to improve the situation. The territorial mandates,¹ which they substituted for the assignats (March, 1796), were at first welcomed by the people and gave temporary relief to the government, but they soon began to depreciate and in the long run benefited only a few stockjobbers. Roads and bridges were left unrepaired; river and canal navigation became difficult; the protections against sea and river floods were in such a plight as to expose large numbers to constant danger; crimes were frequent and bands of robbers infested nearly every highway; speculation and gambling vitiated all commercial transactions in spite of the efforts of the Directory to check these evils. What little trade remained was controlled by monopolies and impeded by the exorbitant rates of interest, fifty per cent being a not uncommon rate. Marseilles did about one fifth its former business, and this was only typical of the general decline in industry and trade.

210. The rise of Napoleon was at first beneficial to French industry and commerce. The first industrial exposition, held in the Champ de Mars in 1798, revealed the growth of some important industries. Luxury reappeared as a feeder for reviving trade and industry. France after the Treaty of Campo Formio (1797) was supreme in northern and central Italy; she held Corsica and controlled the Ionian Islands; she had already bargained for the surrender of Malta into her hands; in short, "the Mediterranean was

¹ The mandates were nominally exchangeable for public lands, but they, like the assignats, were issued in too large quantities

fast becoming a French lake," and this fact promised much to French merchants. On the other hand, England just then found her military reputation and commercial credit at a low ebb; her sailors had mutinied at the Nore and Spithead; the Bank of England had suspended specie payments, thus reducing England to a paper currency, she was sorely afflicted with her Irish troubles, which were jealously fostered by France. In India, Tippoo Sahib, the son of Hyder Ali, backed by France, was contesting English supremacy. The cape route to the Indies was in the hands of the Dutch, who were now in alliance with France. It seemed to Napoleon, who had now become the real leader in France, a favorable moment to arouse the old-time hostility against England to its highest pitch and to strike a final blow at her eastern commerce and empire. Accordingly, he was purposely lenient towards the Austrians in the Treaty of Campo Formio and wrote at once to the Directors, "Let us concentrate all our activity on the marine, and destroy England. That done, Europe is at our feet." The underlying purpose of the Egyptian campaign which followed was to destroy England's commercial empire in the East. England, however, realized her danger, centered all her efforts upon the naval struggle, and, with Nelson in command, her fleet annihilated the French Armada in the Bay of Aboukir. A little later Tippoo Sahib was slain and his capital, Seringapatam, captured by the English. England's power in India was more secure than ever.

211. The 18th Brumaire (Nov. 9, 1799). In spite of the failure of his Egyptian campaign, Napoleon was for many reasons received rapturously by the French people upon his return. By the bold *coup d'état* of the 18th Brumaire he became the supreme ruler, and he at once proved himself a splendid administrator. Many political exiles and

prisoners were set free or recalled, the proscription of the nobles ceased, the various revolutionary disturbances were crushed or appeased; the government finances were thoroughly reorganized; the country was cleared of robbers. From the moment that Napoleon assumed supreme power, therefore, French industry and trade improved.

212. Napoleon's peace overtures (1799). One of Napoleon's first acts as consul was to address a letter to the king of England proposing peace, and about the same time he made a similar proffer to Austria. It is very doubtful whether Napoleon really desired peace at this time, but the refusals of England and Austria gave Napoleon an excellent excuse to continue the war. He began by skillfully detaching the lunatic czar, Paul I, from the Coalition, and induced him to revive the Armed Neutrality League against England. Then with characteristic suddenness he crossed the Alps and defeated the Austrians at Marengo (1800), thus regaining what had been lost in Italy during his absence. It is interesting to note that England left her ally, Austria, without support in the Marengo campaign, and yet if Napoleon had failed in that campaign his power in France would have been overthrown by various discontented factions. This raises the question why England missed this opportunity. The answer is found in the fact that England was sacrificing all other considerations in the pursuit of her commercial ambition, and consequently continued to center her whole energy upon the tremendous naval struggle in which she was just then engaged with the neutral states of Europe.

213. The Northern Maritime Confederacy. Several circumstances had conspired to arouse against England other enemies than Napoleon, the most important of which was the general discontent among neutral nations over England's arbitrary exercise of the "right of search." Briefly

stated, England claimed (1) that an enemy's goods might be seized on neutral ships; (2) that neutral ships might be seized when sailing for a port the blockade of which was only nominal; (3) that iron, hemp, timber, pitch, and grain were contraband of war, and might be seized on a neutral ship under any circumstances; (4) that a neutral ship might be searched even when convoyed by a war vessel. In order to oppose these claims the Northern Maritime Confederacy was formed in December, 1800, consisting of Russia, Sweden, Denmark, and Prussia,—Russia taking the lead. England, ever alive to the commercial aspects of the war, centered her efforts, as already stated, upon the crushing of this league. She placed an embargo upon all vessels of the allied neutrals lying in her ports, commissioned a swarm of privateers against trading ships going to the Baltic, and detached Denmark from the confederacy by running her fleet in the terrible battle of Copenhagen (April 2, 1801). The assassination of the czar, Paul (March 23, 1801), soon led to a more important defection from the league. The new czar, Alexander I, reversed the anti-English policy of his father and made peace with England. In June, 1801, the Northern Confederacy was dissolved on the condition that England should yield the second, third, and fourth of the above claims.

214. The Peace of Amiens. England was now supreme on every sea, while France was invulnerable in western Europe. It seemed hopeless for England, single-handed, to try to maintain the old European system against French aggression, and Napoleon's attempt to destroy England's maritime power by the combined Baltic fleets had failed. Both parties wanted a breathing spell, and accordingly, in March, 1802, the Peace of Amiens was signed. The treaty was very favorable to France, for all her continental acquisitions and all the "republics" established by her arms

were recognized, as well as all her colonies, in spite of her reverses in Egypt and on the sea. Nevertheless, all Europe hailed the treaty with joy, for it seemed to usher in an era of general peace and prosperity. The sea was finally reopened to trade, and commercial relations were rapidly renewed and extended.

215. France from the Treaty of Lunéville (1801) to the establishment of the Empire (1804). Four years of respite from continental war followed the Treaty of Lunéville, — years during which French influence was extended into every neighboring state, Napoleon's power consolidated, the Civil Code and Concordat promulgated, and industry and trade revived. France possessed an abundance of resources which Napoleon was alert to husband and develop. Party strife was checked and order preserved; public credit was restored; roads, bridges, and canals were constructed; harbors were improved; Paris and other cities were partly rebuilt. In 1800 the Bank of France was created, first as a private bank having an account with the treasury; in 1803 this bank was placed under the supervision of the government and given the exclusive right of issuing banknotes. The continued division of the great domains into small holdings, and other changes, doubled agricultural products. A high protective tariff was maintained; new industries were created, and former ones recovered their patrons. At the exposition of 1801 there were two hundred and twenty-nine exhibitors, at that of 1802 five hundred and forty. Machines appeared and gave a new impulse to the weaving industries; at the exposition of 1801 Jacquard exhibited his loom, and his other inventions soon followed. Important chemical industries arose, and in 1801 the Society for the Encouragement of National Industry was founded. Napoleon also made heroic efforts to revive the foreign trade of France. The extension of

French territories, together with Napoleon's policy of excluding English goods from them, tended to increase the number of French markets. Napoleon also tried to revive the French colonial empire; Louisiana was recovered from Spain (1800); the Peace of Amiens restored to France some important colonies; an attempt was made to reconquer Santo Domingo (May, 1802), French men-of-war went to survey the southern coast of Australia for a settlement. For a time, therefore, especially during the fourteen months of peace with England (March, 1802—May, 1803), the foreign and colonial trade of France revived rapidly and the French flag reappeared on every sea. It soon appeared, however, that Napoleon's efforts to reestablish a colonial empire were futile. In 1803 Louisiana was sold to the United States, partly because of the prospect of war with England and partly on account of the failure to recover Santo Domingo. Even more disastrous was the outbreak of war with England in May, 1803. As this war soon involved nearly all the countries of Europe, and continued almost without interruption until 1815, it made terrible inroads upon French industry and trade, as well as upon that of all Europe.

216. The reasons for the rupture of the Peace of Amiens. The French could not pardon England's aid to the *émigrés* nor the subsidies furnished by her to the Coalitions; the English masses were incited by the Tories to regard the Peace of Amiens as almost treasonable. Furthermore, Napoleon during the peace annexed Piedmont and Switzerland, and England suspected that he intended to reoccupy Egypt. The most important cause, however, was the industrial and commercial rivalry between the two nations; the long war which followed was another struggle for the markets of the world. France saw herself being outstripped in the use of machinery, in colonial markets,

and in colonial empire. England had superior coal and iron mines and excelled vastly in the production of cottons, woollens, muslins, hardware, and other necessities. England was also beginning to compete seriously with France in the production of luxuries. On the other hand, England was irritated by Napoleon's persistent war of tariffs. The question of the commercial relations between the two countries had not been touched by the Treaty of Amiens. England therefore claimed the right of sending her goods to French ports according to the terms of the treaty of 1786, but Napoleon, instigated by the protests of French manufacturers, maintained that this treaty had been superseded by the French tariff of 1791, and revived the old Jacobin laws against English commerce. Every French annexation of territory in northern and central Italy restricted England's trade and cut off her supply of raw silk. The French garrisons in Switzerland and Holland impeded or diverted English trade with western Germany. The temporary success of the French in Santo Domingo and the recovery of Louisiana occurred during the interval of peace, and both seemed seriously to jeopardize English trade. Moreover, while England saw France reviving her manufactures and extending her trade with the continent and the colonies, the Peace of Amiens did not seem to greatly benefit her own industries and trade. In fact, the outgoing tonnage of the United Kingdom actually decreased during the interval of peace: in 1801 the clearances were 1,958,373 tons; in 1803, 1,788,768 tons. War was indeed preferable to such a peace, for war would enable England freely to resume her campaign of smuggling with the continent and the Spanish colonies and enable her to steal the French trade with the United States. If considerations like the above were not sufficient to decide England to renew the war, there were not wanting direct

provocations. Historians have emphasized Napoleon's insult to Lord Whitworth as a direct cause for the outbreak, but a much more important provocation was Colonel Sébastiani's "commercial mission" to the East. The publication of the report of this emissary of Napoleon's was probably one of the most important direct causes leading England, contrary to the terms of the Treaty of Amiens, to retain the island of Malta, which act was technically the cause of the renewal of hostilities. This report pointed out very significantly the weak points in the English hold on the East, saying, among other things, that six thousand French troops would suffice to conquer Egypt, and that the Ionian Islands would declare themselves French territory as soon as a "favorable opportunity" was afforded. Such a hint might well alarm England.

Napoleon, on his part, was quite willing to take up the challenge given by England in her retention of Malta. He entered into the war fully aware that it was to be a life and death struggle for supremacy, but he was confident that he could crush England by starving her industry and commerce, and he hoped by destroying England's commercial and industrial supremacy to raise himself to the political supremacy of the world. Thus hoping and believing, he hastened to build up his continental system. At the same time he devoted all his energy which was not otherwise absorbed to various measures for developing French industry and commerce, some of which must now be considered.

217. French industry and commerce under the First Empire (1804-1814). The encouragement of industry and commerce begun under the Consulate was continued under the Empire. Napoleon offered magnificent rewards to inventors; he promised \$200,000 to him who would invent a machine for spinning flax, and the same amount to the

scientist who would make it possible to substitute beets for cane in the manufacture of sugar; he pensioned Jacquard, the inventor of a loom for weaving silk; he decorated with his own hands Lenoir for his cotton-spinning machines. The chambers of commerce were reorganized; a school of arts and trades was established at Compiègne; investigations of the condition of trade and industry were ordered; the monetary system and the standard of weights and measures were fixed; the Code of Commerce appeared in 1807; about forty thousand miles of roads were maintained; some important new roads were created, especially those across the Alps, the Cévennes, and the Vosges; twenty rivers were improved; ten canals were created or completed; many bridges were built; the ports of Antwerp, Cherbourg, Flushing, Dunkirk, Calais, Brest, and Savona were enlarged and improved; the rebuilding of Paris and other cities was continued. For some time, therefore, under the Empire there was an appearance of great prosperity. Former industries were revived, and many new ones appeared; the beet-sugar industry was developed; cotton was grown in the south; muslins, linens, velvets, silks, satins, brocades, calicoes, cashmere shawls, rubber goods, morocco leather, clocks, watches, potteries, goldsmith wares, chemicals, firearms, and surgical and mathematical instruments were manufactured in considerable quantities; there were 1422 exhibitors at the exposition of 1806. The countries annexed by France participated for a time in this development, and French goods found ready markets over the whole continent. But the development at this time was artificial; everything was overdeveloped and overregulated. Furthermore, France in the end was to suffer from the failure of Napoleon's misconceived continental system. He, who from first to last acted on the assumption that England's wealth

was artificial and could be destroyed by a war of tariffs, found to his sorrow that his own scheme was infinitely more artificial. He did not properly estimate English persistence and industrial skill, England's superiority in machinery and mineral wealth, her long schooling in commercial enterprises, and her naval supremacy; neither did he reckon with the inevitable reactionary protests which finally arose from all parts of the continent against his own monstrous, artificial tariff scheme. These were the homely forces, however, which, in a last analysis, caused his downfall.

218. Napoleon's continental system. The germs of this system are to be found in the Jacobin laws against English commerce and the hostile decrees of the Directory, some of which have already been noted. As soon as Napoleon came into power he revived these earlier laws, enforced them more vigorously than they had ever been enforced before, and as fast as he annexed or obtained control of new territory he extended their application, — in Naples, Tuscany, Piedmont, Elba, Sardinia, Switzerland, and Holland. Even after he made peace with England in 1802 he continued his war of tariffs against English goods. Just as soon as England refused to surrender Malta (May, 1803) Napoleon, in violation of the Treaty of Basel (1795) with Prussia, occupied Hanover and sent a French force to Cuxhaven at the mouth of the Elbe, in order to cut off England's trade with the interior of Germany. England thereupon threatened Prussia with a blockade if the French force were not withdrawn. Fearful for the linen trade of Silesia and other industries, the Prussian king sent a letter of protest to Napoleon; but the Prussian envoy, Lombard, was duped and Cuxhaven continued in French hands without further Prussian protest. England was as good as her word and proceeded with the blockade; thus Prussia and England, who ought to have been allies, were separated

temporarily, at a critical moment, by Napoleon's skillful diplomacy. Spain's grievances against England were also skillfully used to close the markets of that country against English merchants until 1808. The famous Boulogne expedition was undoubtedly a feint to exhaust England by compelling her to support a great array for defense, while her resources were further exhausted by the extension of the "coast system." England's victory at Trafalgar (1805) destroyed Napoleon's hopes of directly crushing her navy, and accordingly, after his victory at Austerlitz (Dec. 2, 1805), he proceeded to turn the thumbscrews still tighter upon English commerce. The coast system was at once extended throughout all Italy, as well as Istria and Dalmatia, and in March, 1806, Prussia was forced to exclude English ships and goods from all Prussian and Hanoverian harbors. Prussia, however, soon learned that she had been duped by Napoleon, and Oct. 9, 1806, declared war against him; but just five days later the two wings of the Prussian army were completely routed at Jena and Auerstadt. Napoleon then promulgated his celebrated Berlin Decrees (Nov. 21, 1806), which declared the British Isles in a state of blockade, and prohibited the inhabitants of all territories held by French or allied troops from carrying on any trade with Great Britain or admitting any merchandise whatever that had been produced in Great Britain or her colonies. No vessel that had even touched at a British port was allowed to enter a continental harbor; all English subjects in French territories were to be seized; all English letters and all goods of British origin, whoever might be the owner, were ordered to be seized. Half of the confiscated goods were to serve as an indemnity to French and allied merchants for their losses in the maritime war; the other half was taken by Napoleon. The coast system was now applied to all of Europe from the Vistula on the

north to Dalmatia on the south, except Denmark, Portugal, and the Austrian port of Trieste; it had already become almost a continental system.

In February, 1807, the Russians and Prussians made a desperate stand at Eylau, and Alexander then appealed to England for aid. Had England complied with this request, Napoleon would probably have been overpowered. England, however, instead of promptly cooperating, sent her troops to every other part of the world,—to Constantinople, Egypt, and Buenos Ayres. This resulted in the crushing defeat of the Russians at Friedland (June 14, 1807) and the Treaty of Tilsit (July 7, 1807), which enabled Napoleon to complete his continental system and exclude British goods from the rest of Europe. The best explanation of England's policy at this critical moment is found in the fact that she was looking out chiefly for wider markets, and her various expeditions just alluded to were really useful to her by opening valuable markets in Turkey, Egypt, and South America. It is difficult to see how England could have endured the strain of her struggle against Napoleon and his continental system during the years 1807 to 1810 without the trade gained in these new markets. Her trade with Spain, for example, increased from \$10,000,000 in 1807 to \$55,000,000 in 1811; her total trade increased, in spite of many inroads upon it, from \$235,000,000 to \$330,000,000 during the same period.

While England was thus extending her trade in various parts of the world she also retaliated against Napoleon's continental system by a series of Orders in Council (January to November, 1807). These decrees, especially that of November 21, were undoubtedly excessive. By compelling all neutral trade with Europe to pass through English ports, they rendered it liable to confiscation by the French, and thereby alienated several neutral nations,

especially the United States. In 1806 the United States bought from England goods worth about \$64,000,000, over two thirds of which was paid for by exports to Europe. As the Orders in Council cut off these exports from the United States to Europe, England inevitably lost much of her trade with this country and ultimately became involved in the War of 1812. On the other hand, we must not forget that the underlying idea of all these orders was to starve Europe into revolt against Napoleon, and that finally this policy was one of the most powerful factors in his downfall. It is not so easy to excuse England's high-handed treatment of Copenhagen and the Danish fleet in September, 1807. England had no right to bombard this city and demand the surrender of this fleet without positive evidence that the Danish government intended to hand over the fleet to Napoleon, and this evidence England did not possess. It is also certain that the Copenhagen expedition was on the whole disastrous to England, for Denmark became one of Napoleon's most faithful allies, and Alexander soon after (November 7) declared war against England.

In spite of England's single-eyed attention to her commercial interests and her retaliatory policy against Napoleon's continental system, this system was apparently quite successful up to 1809. By that time the blockade included Denmark, Sweden, and Turkey, in addition to the countries included in 1807, England was disgraced in the eyes of the world by her treatment of Denmark; her trade with the United States had seriously declined; French corsairs were doing much damage to her colonial trade, especially around the island of Mauritius. But it was not long after this date before signs of a revolt against the continental system began to appear. Merchants and manufacturers were aroused against the soldiers and spies who dogged

their footsteps in most of the large continental towns and cities; the terroristic rule of Davoust in Hamburg was especially galling. Throughout the Napoleonic empire a general decline in trade and industry set in. English cruisers more and more deprived continental manufacturers of their raw materials. The continent became dependent upon English ships for its colonial products. By 1809 England had a monopoly in sugar, tea, and coffee; in 1811 the prices of sugar, coffee, tea, cotton, indigo, etc., in Paris were about ten times as high as in London.

In 1810 Napoleon decreed an average duty of fifty per cent on all colonial products and ordered all British goods throughout his dominions to be burned. This decree alienated the whole continent and proved a turning point in his vast artificial system. England had already shown herself very ingenious in eluding Napoleon's blockade: Gibraltar and many other parts of the Iberian peninsula, the Channel Islands, Jersey, Heligoland, Malta, Corfu, Sicily, and Salonica were all centers whence English and continental smugglers passed her goods to the continent, and all sorts of tricks were resorted to in order to gather the enormous profits derived from such trade. Even Napoleon himself recognized the failure of his continental system by selling numerous licenses to evade it and by clothing his own troops with British cloths. Finally, in December, 1810, Russia withdrew from the blockade, and from that moment English goods began to pour into central Europe by way of Riga. Napoleon tried to punish this defection in his Moscow expedition, but it ended disastrously and his overthrow soon followed.

Enough has been said to show that the great continental war was from beginning to end, far more than is commonly realized, a struggle between giants for the commercial and industrial supremacy of the world; that many

of the decisive turning points of this war hinged on commercial considerations; that one of the most important and direct causes for the overthrow of Napoleon was the reaction against his misconceived continental system.

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CHAPTER XXIV

ENGLAND AND FREE TRADE

219. Depression after the great continental war. This war left England with a national debt of nearly \$4,500,000,000, in spite of the fact that an average annual revenue of \$350,000,000 had been raised during its continuation. Unfortunately, these burdens weighed heaviest upon the poorer classes. The landlords, aided by the inflated prices for produce, squeezed part of their share of the taxes out of their tenants by raising rents, and another part of it out of the poor wage workers by lowering their wages and raising the duties on wheat. The manufacturers and merchants likewise found compensation for the taxes paid by them in the high prices secured for every necessary of life which they manufactured or sold, as well as for luxuries, and by lowering the wages of their employees to a starvation level. The wealthy manufacturers, merchants, and landlords found another compensation for their taxes in the scandalous discounts which they obtained in loaning their money to the government. Thus throughout the war they were continually getting richer, while the wage earners were growing poorer.

The heavy pressure of taxation and debt was increased after the war by the general distress which prevailed, and then the rich as well as the poor began to feel the burden. The sudden fall in the price of wheat in 1812 injured the farmers and landlords, especially as they had just paid out large sums in reclaiming waste lands, which produced enough

to pay while the price of wheat was so high, but not enough to pay after the price fell. Then in 1816 and 1817 there were bad harvests, which sent up the price of wheat again; but this did not greatly benefit the farmers, because they had little wheat to sell. On the other hand, these bad harvests, coupled with the Corn Law of 1815, which kept out all foreign wheat until the price rose above \$2.50 per bushel, produced frightful suffering among the wage earners. Under the artificial stimulation of this obnoxious law the price of wheat rose above \$3.25 a bushel in 1816 and 1817, while wages continued to go down. Furthermore, the cessation of expenditures for war purposes, and the glutting of the home and foreign markets after the war by the too rapid development of English manufactures, and the increased production of continental countries under the stimulation of their new tariffs, caused serious losses to English merchants and manufacturers, compelling them to shut their factories for a time. This fact, together with the disbanding of the large land and naval force and the continued introduction of machinery, threw many out of employment and made wages still lower, thus adding to the terrible distress among the poorer classes. Lord Castlereagh's hostility to any measures of political reform increased the discontent among the distressed classes, and there were not wanting agitators to fan the flame. Consequently, there were numerous political meetings, which were attended by large numbers of the suffering and discontented workmen. Worse still, there were many riots on the part of the agricultural, industrial, and mining laborers. The reactionary effects of these riots upon industry and trade are very evident.

220. Alternate commercial revivals and panics (1819-1840). In 1818 there was a temporary return of prosperity; the price of wheat fell, thus relieving the poor; trade revived,

factories and mines were reopened, thus giving workmen employment. Prosperity, however, led to speculative overproduction and the next year there was a severe industrial and commercial panic; factories and mines had to be closed, and workmen suffered; money became scarce, prices fell, and exports decreased rapidly; there was widespread ruin among the merchants and manufacturers, causing nearly thirty-six hundred bankruptcies in one year (1819). In 1821 trade and industry began to revive, but there was another serious panic in 1825. Some claim that this panic was caused by the Bank of England's resumption of specie payments, but whether or not this be true, there were undoubtedly other important causes, such as overproduction, the too rapid importation of cotton, silk, and other raw materials at too high prices, the overissue of paper notes by country banks, and the foolish speculations in the trade with the Spanish American countries. After this crisis had run its course there was a slow but steady improvement for several years; but again, from 1836 to 1839, there was a panic, caused chiefly by the formation of numerous joint-stock banks and other companies and by the extravagant speculation in grain and tea. In spite of all these interruptions, however, the foreign trade rose to \$815,000,000, the exports being \$513,500,000.

221. Condition of English agriculture under the protective system (1815-1845). The sudden fall in the prices of agricultural products after 1812, coupled with the refusal of the landlords to reduce their rents, and the bad harvests of 1816 and 1817, had ruined many farmers. The more stringent Corn Law of 1815, which had been passed to relieve the farmers from the competition of Prussian, Polish, and other foreign grains, and to bolster up the landlords' rents, not only caused much suffering among the wage earners, but failed to permanently help the farmers. Relying

on the artificial protection of these laws to keep prices up, they began to grow grain in such quantities as to bring the price down. For quite a number of years, therefore, they were obliged to pay their rents out of their capital rather than their profits. During the last ten years of the protectionist period, however, they again became more prosperous, owing partly to favorable legislation of various kinds, but chiefly to the improvements in farming methods. More scientific drainage was introduced and fostered by the government; the chemical nature of the various soils was studied more carefully, and the most suitable fertilizers were applied to them; nitrate of soda and guano began to be used; the art of making superphosphate of lime by dissolving bone dust in sulphuric acid was discovered. There was also a marked improvement in agricultural implements and machines; Small's plow, Meikle's threshing machine, and the drilling machine came into use. The rearing and breeding of stock, the cultivation of artificial grasses, and the selection of seeds now received closer attention and more scientific treatment; the Royal Agricultural Society was founded in 1838, the introduction of railways, canals, and steam navigation decreased the cost of transportation and enabled the farmers to bring their produce to market more easily.

222. Gradual undermining of the protective system (1820-1860). By the close of the Napoleonic wars the English protective system had already been partially undermined. The Navigation Acts, protecting English shipowners, had been gradually going to pieces; in 1796 they were modified so as to allow the United States to send goods to England in her own vessels; in 1811 Brazil had been allowed the same privilege. The new commerce and manufactures ushered in by the industrial revolution had grown up largely without governmental control or influence. Many

new commercial companies had been formed without governmental regulation, and in 1813 the trade of the East India Company was thrown open to general competition. Many old laws regulating trade and industry, like the Assize of Bread and the Statute of Apprentices, had for some time been practically dead letters. In 1814, after having been undermined piecemeal, the latter statute was repealed. But there was still a confusing accumulation of about 1500 more or less contradictory customs laws, which imposed heavy duties on nearly everything obtained from abroad, foodstuffs and raw materials as well as manufactures; there was also a complicated system of internal taxes on home products. Naturally these laws were evaded by extensive smuggling, which had become a regular business, aided by many of the people and connived at even by the government. In fact, the smugglers had established a tariff schedule of their own, which was just enough lower than the government schedule to get business; and Parliament contented itself with imposing the highest duties on goods that the smugglers found hardest to handle advantageously.

The beginning of the removal of import and export duties had been made in 1786, when Pitt's commercial treaty with France was signed, but the operation of this treaty had been rudely interrupted by the French Revolution and Napoleonic wars. In 1820 a new campaign was begun against the evils and abuses of the protective system, when the famous petition from the London merchants was sent to Parliament, asking for a repeal of all protective duties and the reduction of the tariff to a strictly revenue basis. About the same time the Edinburgh Chamber of Commerce sent in a similar petition. Parliament promptly appointed an investigating committee, which soon made a report favoring the principle advocated in these two

petitions. Under the leadership of Huskisson, the president of the Board of Trade, but after much opposition, Parliament (1823-1825) reduced the duties on manufactures, removed or reduced the duties on raw materials, slightly modified the Corn Laws, abolished most of the restrictions on exports, relaxed the restrictions on the exportation of machinery, permitted artisans to combine to settle wages and hours and to emigrate, allowed Spanish-American countries to send their goods to England in other than English vessels, and authorized the crown to make reciprocity treaties with other countries so far as shipping was concerned. Acting under this last authorization, the government at once made such treaties with Prussia, Sweden, Denmark, and Hamburg, and during the next twenty years with most of the important countries of the world. In 1828 Wellington's sliding-scale system of duties on wheat was adopted, by which the duty was to fall as the price of wheat rose, and vice versa.

Contrary to the expectations of many, the above measures proved very beneficial. The manufacturers, who had most loudly opposed the revision of the tariff, soon saw that the lower duties on finished products were more than offset by the reduction or removal of duties on raw materials, and both manufacturers and merchants also profited by the revision of the Navigation Acts. Many manufactures, especially cotton, wool, and silk manufactures, now made much more rapid progress than ever before. Even the laboring classes were temporarily palliated by the lower prices for wheat and other products, by the repeal of the Combination Acts, and by other laws in their favor. But much of the protective system still remained, and it was considered oppressive by many business interests. For some years, however, Parliament devoted its attention mainly to other questions, although several bills for further revision

of the tariff were introduced. But another succession of bad harvests again raised the price of wheat (from \$1.25 per bushel in 1835 to \$2.20 in 1839). Besides, the crowded, dirty, and miserable condition of the poor in the cities was attracting more and more attention and sympathy. The high price of wheat not only added to the misery of the poorer classes, but was a serious obstacle to trade. These facts led certain leaders to direct attention again to the Corn Laws as the chief cause for the high price of wheat.

A new stage in the struggle for free trade was entered upon when the Anti-Corn-Law League was formed at Manchester in 1838. The president, leading spirit, and most influential agitator of the league was Richard Cobden, who was ably seconded by the orator, John Bright. The wealthy Whig manufacturers soon became interested in the movement, because they saw that abundant food would help to keep labor cheap; many of the wealthy merchants were also interested because the Corn Laws interfered with trade. Money was therefore easily secured for promoting the objects of the league, and an active campaign of agitation was at once begun. A regular free-trade journal was published; millions of free-trade tracts were distributed; skilled lecturers were employed to address mass meetings throughout the country; the speeches of Cobden and Bright were printed and scattered broadcast. Of course the industrial wage-earner class was easily enlisted, but there were many others who were open to conviction, and these were made to see that the object of the league was in harmony with the tendency of the period against governmental restriction. Gradually a great many electors of all classes were enlisted and thoroughly organized. On the other hand, the efforts of the league were opposed by the whole body of agriculturists, who formed the main

strength of the Tory party then in power. When Peel came into power in 1841, the country was quite sharply divided on the issue of the Corn Laws and was threatened with a profound political crisis. He saw clearly that some extreme measures must be taken to avert a violent revolution, and, although representing the Tory party, he resolved to impose some heavy sacrifices upon the Tory landlords and farmers. Accordingly, in 1842, he substituted another sliding scale of duties on wheat for the Wellington scale still in force, and reduced or abolished the duties on several hundred other articles—food products, raw materials, and manufactured goods. At the same time he protected the treasury against the changes thus made in the revenue by reestablishing an income tax for three years. Of course Peel's measures were very unsatisfactory to the advocates of protection, and were not just what the Anti-Corn-Law League wanted. All the previous advocates of protection, and even many of the manufacturers, who had favored a repeal of the Corn Laws, thought he had gone too far; the Tory landlords did not like the change in the Corn Laws, and many of the manufacturers did not like the changes in the duties on manufactured goods. On the other hand, the radical free traders, the merchants, the industrial wage earners, and some of the more enlightened manufacturers thought Peel had done too little. They therefore redoubled their efforts and were favored by the circumstances and tendencies of the period. Prosperity and good times soon returned; during the next three years manufactures flourished more in the face of the new competition than they had before without it. Although a series of good harvests and other circumstances contributed to this revival of prosperity, there is no doubt that Peel's policy had a good deal to do with it. He thus won the

support of many manufacturers, as well as the merchants and the industrial wage earners, who were already for the most part on his side. In 1845, therefore, he swept away many more duties on imports and all the duties on exports, and lowered still other duties. The country gentlemen now began to transfer their allegiance to Disraeli, who became their leader and used all of his great ability to defeat Peel. But the Anti-Corn Law League was rapidly growing in numbers and in influence; Bright's oratory and Cobden's reasoning were telling even on the farmers, who now saw themselves suffering while the manufacturers and merchants flourished. At this stage of the struggle Peel was a free trader in principle and practice so far as manufactures were concerned, but he feared that the repeal of the Corn Laws would make England dependent for her food supply upon foreign countries, which might in time of war starve her into submission. His fear was no doubt justified, but that very year the grain crops in England and Scotland were again seriously injured, and Ireland was afflicted with a terrible potato famine. Of what use was it to talk about possible future starvation in case of war, in the face of actual present starvation in time of peace? Peel was soon convinced by the argument of necessity thus forced upon him, and saw that the Corn Laws must be swept away completely, in order to relieve the starving millions in Ireland and the many sufferers in England and Scotland. Late in the year 1845, therefore, he proposed to the Cabinet the repeal of the Corn Laws. Failing to convince the majority, he resigned, but was recalled and, in January, 1846, brought in his bill for repeal, which was finally carried in June, after a long and fierce debate. This bill provided another sliding scale by which a slight temporary protection was placed on wheat

until 1849, after which the protective tariff on wheat was to be altogether removed, though a nominal duty of about three cents per bushel was still to be collected.

Peel's reforms, thorough as they were, still left import duties on several hundred articles. To cap the climax, therefore, Gladstone, in 1853 and 1860, reduced the English tariff practically to its present free-trade basis, leaving only revenue duties on a very few imports. Furthermore, in 1849 and 1854, after much opposition, the last vestiges of the old Navigation Acts were repealed, thus taking away from English ships their special privileges in the coasting trade and in the trade with and between the colonies.

223. Effects of free trade. England's maritime power had developed under the protection afforded by the Navigation Acts, and her industrial ascendancy was already quite well established before she adopted free trade. Had the old methods of shipbuilding been continued, it would hardly have been possible for England to maintain her maritime supremacy under a system of free competition. The great advantage possessed by the United States in timber and naval stores would almost certainly have given her the leadership in shipbuilding. But England's supremacy was saved largely by the introduction of iron ships. Undoubtedly she was also well prepared for this important change from protection to free trade, by reason of her financial strength, her splendid fleet, her extensive colonial empire, and the previous development of her industries caused by her mechanical skill, cheap labor, coal supply, and extensive use of machinery. By this step, perhaps more than by any other, she saved herself from the agitations and revolutions which troubled the continent after the Revolution of 1848 in France. By this step also she became the great dock, as it were, where were unloaded, free of charge, the products

of all countries, thus leaving her a large share of the profits of the world's trade. Not only did foreign merchandise come there for redistribution, but foreign merchants, after unloading there, replenished their cargoes in her markets. She profited also from the sojourn of foreign ships in her ports by supplying them with coal and provisions and by charges for their repairs. Her banks profited enormously by conducting the financial operations of these foreign merchants. Furthermore, the new prosperity of the free-trade period caused a continued rapid growth of population and a new exodus of her people to her colonies in all parts of the world, where they created new outlets for her goods and new supplies of raw materials. No wonder then that her trade and industry took a new flight of progress and that her market came to regulate the markets of the world. By the close of the Age of Steam her foreign trade amounted to \$2,670,000,000, of which \$1,195,000,000 were exports. On the other hand, it is important to note that England's free-trade policy subsequently proved quite one-sided, for other leading nations did not follow her example. They retained or created high protective tariffs, and thus attracted English capital to develop their industries, the products of which gradually began to enter the free markets of England and her colonies. In the next period we shall see that England's one-sided free-trade policy thus helped to undermine her industrial supremacy, at the same time that it helped her to build up such a commercial supremacy as the world had never seen before.

224. The adoption of the free-trade policy was not the only cause of the new industrial and commercial development. It is rather true that a fortunate combination of circumstances coöperated with the new policy to make it successful. For one thing, the discovery of gold in California and Australia furnished a much-needed addition to the supply

of precious metals. Coming as it did, immediately after the commercial crisis of 1847 and just at the time when the repeal of the protective system was first taking effect, this discovery gave a great stimulus to trade by raising prices and by developing new markets in Australia. The first international exposition, held in London in 1851, also benefited England's industry and trade very greatly, not only by revealing her supremacy, but also by showing her manufacturers how they might improve their own work. This exposition and those that soon followed were relatively much greater stimulators, educators, and revelators than those of more recent years. The commercial treaty with France in 1860 also proved a very great help to England's commercial expansion. The systematic improvement in the means of communication and transportation was another important factor. Many river and harbor improvements were made; the system of turnpikes was revolutionized during the first half of the nineteenth century, under the competent direction of the Scotchmen, Telford and Macadam; many iron bridges were built; by 1840 the network of English canals was completed. But more important was the rapid construction of railroads and the still more rapid development of steam navigation. The Stockton and Darlington Railroad was opened in 1825, the Liverpool and Manchester Railroad in 1830; the *Royal William* crossed the Atlantic in 1833; a regular line of steamers was opened between England and India in 1837, between England and America in 1838; by 1845 there were about three thousand miles of railroads in England, in 1866 nearly fourteen thousand miles. These improvements in the means of transit not only greatly reduced the cost of transportation, but also led to more efficient ways of doing business. Similarly, the introduction of the penny post in 1840 and the development of

the electric telegraph system after its first use in 1837 gave a great impulse to trade and industry. Other important factors were: (1) the superiority of the English marine; (2) the improvement in banking facilities; (3) the multiplication of mechanical inventions; (4) the adoption of the gold standard as the basis of the English monetary system; (5) the abundance of capital and cheap labor; (6) the growth of population, with its increasing demands upon industry and commerce; (7) the industrial skill and business experience of the British; (8) the growth of trade with the United States and South America; and (9) the fact that in all the great questions of her foreign policy her statesmen were alert to secure the utmost benefits and privileges for their manufacturers, merchants, and shipowners,—this being preëminently true in their attitude towards South American independence, the independence of Greece, the Russo-Turkish War (1828–1829), the Belgian question (1830–1832), the formation of the German Zollverein, the various Spanish, Portuguese, French, and Italian revolutions, the Afghan War of 1838, the Crimean War, and the various interventions in Egypt.

225. The colonial expansion of England was one of the most important causes for her rapid industrial and commercial development under the free-trade régime. The close of the continental war had left her in possession not only of all the colonies which she had before that war, but also of Tobago, St. Lucia, Trinidad, Demerara, Ceylon, Mauritius, the Cape of Good Hope, Malta, and Corfu (protectorate). During that war she had also annexed Mysore, Surat, Tanjore, and the Carnatic, and extended her power in northern and central India. Soon after, she fortified Socotra and Aden, and later, Perim, Cyprus, and Egypt, thus protecting her approaches to the East Indies. In 1819 she established herself at Singapore, and in 1826 annexed Assam and

Malacca. The opening of the Indian trade to private enterprise in 1813 gave a great impulse to the commerce with that peninsula; the exports of India increased from \$5,000,000 in 1810 to \$50,000,000 in 1834, her total trade in the latter year being \$70,000,000. But the development of India was much more rapid under the free-trade régime, especially during Lord Dalhousie's administration (1848-1856) and during the Civil War in the United States, when England derived a large part of her cotton from this colony. By 1866 the total trade of India amounted to \$615,000,000. After the reopening of the American markets the Indian cotton trade decreased so much that in 1867 the total trade was only \$480,000,000, but it gradually increased thereafter, subject to some fluctuations, as we shall subsequently see.

Parallel with the development of India was that of Australia. While India was acquired only by a long series of wars, Australia was taken by peaceful occupation. In the same year that Watt patented his steam engine and thus opened the Age of Steam, Captain Cook made his famous voyage of discovery to New Zealand and New South Wales. By his advice a shipload of convicts was sent out in 1788, and Sydney was founded. In 1799 sheep were introduced, and thus was laid the foundation of a very important industry in that colony. Between 1815 and 1850, Victoria, Queensland, West Australia, South Australia, Tasmania, and New Zealand were colonized, and their exports of wool increased quite rapidly; but this magnificent continent failed to attract settlers in large numbers until gold was discovered there in 1851 by Hargreaves. Then the population and trade of these colonies grew by leaps and bounds. Gold worth about \$700,000,000 was exported between 1851 and 1866, and by the latter year about one hundred and fifty million

pounds of wool were being exported annually. Besides these staples, Australia was then exporting considerable quantities of silver, copper, iron, tin, grain, flour, hides, cattle, horses, sheep, and tallow. She already possessed several important manufactures based upon her agriculture. Melbourne and Sydney were thriving commercial and industrial cities, each with a foreign trade of about \$100,000,000. The total trade of Australia, exclusive of specie, amounted to about \$250,000,000.

England's posts at Aden and Socotra gave her a good base for trading with Persia and Herát as well as India. After the Opium War (1839-1842), China was compelled to cede Hongkong to England and to admit opium into the Celestial Empire. As rice and opium were the two leading Chinese imports, which England obtained from India, while other European nations did not have access to a similar supply and were obliged to give silver for the tea and silks which they bought from China, England had a great advantage from the first in her trade with that empire, and she rapidly extended it after the cession of Hongkong. The Chinese War of 1857, regrettable as it was, only tended to increase England's trade in that direction. It was during the Age of Steam that England laid the foundations of her present extensive power in South Africa. The Cape of Good Hope, which had first been acquired in 1796, was finally ceded to England in 1814 and then became Cape Colony. Natal, which had been founded by Dutch settlers, was placed under British rule in 1841. It was not until the next period, however, that England acquired her larger territories in Africa and entered seriously into the development of their resources.

226. There were some serious interruptions in the growth of English industry and commerce under the earlier free-trade régime. First, there was the panic of 1847, caused

by the too rapid development of railroads and the wild speculation connected with it, which locked up capital in a form from which it could not easily be diverted. So great was the craze for investing money in new enterprises, no matter how shaky, that nearly \$2,500,000,000 was borrowed in 1847. Fortunately, the influx of gold from California and Australia soon relieved the situation, and there was a rapid revival; but in 1857 there was another commercial crisis. This panic originated in the United States, but the close relations between the two countries made the American panic affect England quite seriously. The iron and textile industries were the chief sufferers, many of their factories being obliged to close. No sooner had the country nicely recovered from this crisis than the Civil War in the United States caused a cotton famine which turned about eight hundred thousand wage earners in Lancashire out of employment, producing frightful misery there and seriously checking for a time the growth of English trade. Fortunately, other circumstances again partially compensated for the heavy loss. It was just at this time that the commercial treaty with France in 1860 came to the rescue. This treaty caused a very rapid growth of trade between France and England, which largely compensated for the loss of trade caused by the cotton crisis. At the same time the cultivation of cotton was developed rapidly in India; in 1860 India supplied England with two hundred and four million pounds of raw cotton, in 1866 six hundred and fifteen million pounds.

227. The abolition of slavery in the colonies, while very creditable to England from the moral standpoint, undoubtedly did much industrial damage to some of the West India Islands. Jamaica, in particular, suffered irretrievably from this measure. The freed negroes, each with his little patch of ground, were able to eke out an existence satisfactory

to their low tastes without doing much work. Without any motive to labor, large numbers of them refused to work on the plantations, and the labor supply became utterly inadequate. The result was that the exports of Jamaica soon fell from \$15,000,000 to \$5,000,000, and the production of sugar to one fifth of what it had been under slavery. Rival producers of sugar soon outstripped Jamaica, and she has never recovered her supremacy in sugar production. The other islands, for various reasons, fared somewhat better, and their production began to increase again a few years after the slaves were freed; the negroes in those islands purchased lands and prospered; education made some headway, and crime diminished.

228. Condition of English agriculture under the free-trade régime. Although many predicted that the repeal of the Corn Laws would ruin the English farmer, he continued to prosper for some years after this step was taken. This was due chiefly to the enormous development of trade and manufactures under the new régime and the greater interchange of products made possible by the improvements in transportation. Moreover, the farmer was greatly aided by the increase in the total and the per capita consumption of other farm products than wheat. Vastly more of the farmer's butter, cheese, and bacon, for example, was consumed in 1866 than in 1840. At the same time, some very important improvements in implements and farming methods were made during that period; the reaping machine was introduced in 1852, the steam plow in 1855. Up to the very close of the Age of Steam, and for a little longer, English agriculture was therefore quite prosperous. After the Franco-Prussian War, however, for various reasons, it began to decline, and continued to do so throughout most of the remainder of the century. It cannot be denied that England, since the repeal of her

Corn Laws, has been to an increasing extent dependent upon other countries for her agricultural products; but this was the sacrifice she was compelled to make, sooner or later, for the sake of her industrial and commercial supremacy.

229. Factory legislation (1800-1866). While the government was unwinding its arms of protection from the landlords, manufacturers, and merchants, it began to reach them out in behalf of the industrial laborers, and sadly did this class need protection from numerous dangers. The long hours of labor and the miserably unsanitary conditions, as well as the excessive employment of women and very small children, which characterized the introduction of the factory system, have already been referred to. The unhappy life of these overworked, underfed, half-clothed, and otherwise abused women and children in the northern factories at length began to receive the attention of Parliament. The first Factory Act, passed in 1802, regulated the labor of "bound" children in cotton factories, prohibiting night work, longer hours than twelve hours per day, and the employment of children under nine years of age, and prescribing certain sanitary conditions and provisions for elementary and religious instruction. The rapid introduction of machinery, however, soon led to the employment of other children under nearly or quite as bad conditions as first applied to "bound" children and pauper adults. Their condition soon began to attract attention, and a vigorous crusade was begun that led to a series of laws placing the conditions of factory laborers more and more under the protecting control of the government. The second Factory Act was passed by Parliament in 1819, and extended the provisions of the act of 1802 to children who were not pauper apprentices; but it also applied only to cotton factories. Some minor acts were passed during the next fourteen years, when, in 1833, a very important one was passed,

applying to children employed in all kinds of textile factories. This act provided for four salaried inspectors with extensive powers for enforcing it, and numerous prosecutions and convictions were made. In 1844 another act was passed, the most distinctive provision of which was that children should be employed only a half day or the whole of alternate days, and that they should be sent to school the other half of the time. Fielden's Ten-Hour Act, in 1847, limited the work of those under eighteen to ten hours a day and eight hours on Saturday.

The next stage of development was the extension of these regulations from textile factories to other industries. The Children's Employment Commission, appointed in 1840, reported in 1842 on the condition of underground labor. They found children beginning work in the mines at five and six years of age and girls and women, half clothed, working with men who were stark naked; the usual hours per day were twelve to fourteen, and these often at night. A law was immediately passed prohibiting all underground work by females or by boys under thirteen. Subsequent acts provided minutely concerning the age and hours of laborers in mines, their lighting, ventilation, and safety. In 1846 calico-printing works were similarly regulated; in 1860, 1861, and 1863 bleaching and dyeing factories, lace factories, and bakeries, in 1864 and 1867 still other kinds of factories and workshops, were brought under control. Finally, in 1878, the Factory and Workshop Consolidation Act repealed all former special laws and substituted a general code regulating all industrial establishments. These various English factory laws are especially noteworthy because they exerted considerable influence upon the similar legislation of other countries, including the United States.

230. Growth of trade unions. While the English laboring classes were during this period coming to be better

protected by the government, they were at the same time learning how to protect themselves better. One evidence of this fact is the rapid growth of trade unions during the latter half of the period. The factory system inevitably forced a clear distinction between employers and employees. Unfortunately, this distinction soon led to serious disputes between the two classes, and gradually the laborers learned to protect themselves against the consequences of such disputes by organizing themselves into trade unions. At first such organizations were made illegal by the so-called "Combination Acts," of which the act of 1800 was the most famous; and they were, for manifest reasons, very unpopular with the manufacturers, merchants, landlords, and even with the clergy and philanthropists. In spite of law and public opinion, however, unions were formed in many trades, sometimes secretly, sometimes openly. This led to many prosecutions and convictions of persons enrolled in these organizations. By 1824 and 1825, however, the principle of *laissez faire*, or freedom from governmental regulation, had so far triumphed in England as to bring about two laws guaranteeing freedom of labor and freedom to combine for securing better terms from employers, and these laws gave a great stimulus to the further formation of trade unions. In 1859 a law was passed allowing combinations to secure changes in wages and hours of labor, even if it involved outsiders, and making it lawful to use peaceful persuasion to induce outsiders to join in strikes. This law led to a still further growth of unions, which unfortunately was attended with much disorder and violence. The numerous and prolonged strikes, with their attendant violence, led to several parliamentary commissions, and after their reports were made, Parliament, in 1871, passed the Trade Union Act and the Criminal Law Amendment Act. The first declared that trade unions

could not be declared illegal because they were "in restraint of trade," and that they might be registered as benefit societies capable of holding property and having their funds protected by law. At the same time, the second act renewed and made more stringent the prohibitions upon "molesting," "obstructing," "threatening," or "persistently following" workmen outside the union. Manifestly this second law, in the hands of hostile judges, could easily be construed so as to convict unionists for very innocent practices. Accordingly, the law was modified by the Trade Union Act of 1875, which declared that no action committed by a group of workmen was illegal, unless the same act was criminal if committed by a single individual. This act is the basis of the present English law regarding trade unions.

231. Political reform in England during the Age of Steam. The intimate connection existing between political reform and industrial development makes it necessary to summarize the leading changes made in the suffrage and parliamentary representation during the period we have just been studying. At the beginning of the period the English government was about as complete an aristocracy as ever existed. The list of represented towns was about the same as in the fifteenth century. The large manufacturing towns that had in the meantime grown up in the north had no representatives, except those of the counties in which they were located. On the other hand, many towns once respectable had dwindled until they had a population of only a few dozen, and some could no longer even claim that much basis for representation. As a result of these glaring inequalities the selection of more than one half of the members of Parliament was in the hands of a very small number of the aristocracy, many of whom already had seats in the House of Lords.

But this was not all; nearly all of the offices in the army, navy, foreign service, and counties, as well as the positions in the Church and the universities, were held by members of the aristocracy. There had been some agitation for political reform before the French Revolution, but it did not arouse much interest until awakened by that movement, and the interest thus awakened was checked by the reaction following the excesses of the Jacobins and the Reign of Terror. After the continental war some Whig leaders advocated a moderate reform, and when that party suddenly came into power in 1830 it soon introduced the Reform Bill, which after much opposition was carried in 1832, largely under the influence of the pressure from the masses of the people. This measure disfranchised fifty-six towns which had returned one hundred and eleven members, and reduced from two to one the number of representatives from thirty-one other towns. The seats thus vacated were transferred to the more populous towns and counties. This was a great victory, yet the masses did not directly profit very much, for the suffrage was extended only a very little by this law. But this was only the first step; the industrial classes constantly grew in influence until 1867, when another Reform Bill was passed giving almost universal suffrage to the inhabitants of the town, which included the great body of workingmen. Thus the industrial and commercial progress of England during the Age of Steam was reflected in the progress of her democracy.

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CHAPTER XXV

FRANCE FROM THE FALL OF NAPOLEON TO THE FRANCO-PRUSSIAN WAR

232. The Condition of France in 1815 was such as to discourage even her most hopeful prophets. During the long war England had stolen some of her choicest colonies and colonial markets, and, in spite of the continental system, had undermined her trade with Europe. The Congress of Vienna took from her most of her continental conquests, even the mouth of the Scheldt, and confined her to the boundaries of 1790. In spite of Napoleon's herculean efforts to foster French industry and commerce, they had been seriously injured by his continual wars and misconceived policy; France was financially exhausted, and her five per cent government bonds were selling at fifty-seven per cent. As if to add to the irony of her fate, the foreign powers imposed indemnities upon her amounting to about \$300,000,000, while foreign soldiers extorted untold sums from her defenseless people. The tide of foreign soldiers upon French soil did not turn until about eleven hundred thousand had overrun it, and France was required to support a foreign army of occupation numbering one hundred and fifty thousand. The burdens of France were also increased by an exceptionally bad harvest in 1816, which brought famine prices for agricultural products. This bad harvest and the industrial decline caused the exports of France to fall much below what they had been even before the Revolution; in 1787 they had been about \$105,000,000, but in 1817 they were not quite \$79,000,000.

233. The industrial development of France during the fifteen years following the overthrow of Napoleon was quite rapid, in spite of the discouraging situation at the outset and the political strife which characterized this period. The intoxication of military glory which had seized the French people under the leadership of Napoleon gradually gave way to a love for peaceful industry. The French peasants toiled industriously and saved their earnings; better implements and methods of farming were introduced; the cultivation of wheat increased; the cultivation of corn, tobacco, wood, madder, and beets, introduced by Napoleon, was now developed; the use of potatoes became more general; domestic breeds were improved; agricultural schools and model farms were established; access to markets was facilitated by improvement of the roads, rivers, canals, and bridges; tramways were begun in 1824, and in 1832 the first steam railway for passengers was built.

Several circumstances also tended to aid the development of manufactures during this period, among which may be noted the agricultural prosperity and the growth of population, the peaceful policy of the government during most of the period, the introduction of machinery and the other contributions of science to industry, the return of French capital to its native soil, the acquisition of many industrial secrets from England and other countries, and the large number of foreign travelers, with their numerous demands for French goods. Although English industries, on the whole, developed more rapidly than French industries, some of the latter were ahead and others were abreast of the corresponding industries in England. French bleaching and dyeing, in particular, surpassed English, and consequently the brilliantly colored French silks and cottons brought higher prices than English goods. The output of coal from French mines increased from 600,000 tons in

1815 to 1,700,000 tons in 1829; the total consumption of coal in 1829 was 2,300,000 tons. The consumption of cotton increased from 22,000,000 pounds in 1815 to 66,000,000 pounds in 1830. In 1830 the silk manufactures of Lyons required 27,000 looms; twenty-seven calico factories in Alsace turned out 527,000 pieces; fifty-eight beet-sugar refineries produced 14,300,000 pounds of sugar. At the exposition of 1827 there were nearly eighteen hundred exhibitors, and the products displayed were much finer than ever before.

234. The retention of Napoleon's protective system in some respects aided, but in others seriously retarded the industrial development of the period. At first the government of the Restoration suppressed Napoleon's prohibitive system and tried to bring about a moderate tariff, but the protectionists finally triumphed and an almost prohibitive tariff was reestablished. From 1816 to 1826 no fewer than eight protective tariffs were imposed on various agricultural and manufactured products. Some of these stimulated certain manufactures and the growth of certain agricultural products, but on the whole this protective system was excessive and injurious. For example, the duty on foreign fleeces in 1826 was about \$8, that on cattle and horses \$10 per head, that on coal-smelted iron one hundred and twenty per cent. Until 1825 the duties on the importation of English machinery were almost prohibitive; in 1822 a duty of \$1400 was paid for introducing a foreign steam engine into St Etienne. It is difficult to see how these and similar duties could aid French manufacturers. Furthermore, it must be remembered that the French prohibitive system provoked retaliatory tariffs in other countries which greatly checked the growth of French exports.

235. The foreign trade of France did not develop during this period as rapidly as agriculture and manufactures,

partly owing to the retaliatory duties just alluded to, especially those on French wines and silks. Some progress, however, was made; in 1830 the foreign trade reached \$242,000,000, of which a little more than one half was exports.

236. The French colonies. Some of the most desirable colonies and colonial markets, as already stated, had been seized by other countries during the Napoleonic wars; San Domingo had become independent; Bourbon was of little value on account of the English occupation of Mauritius. Nevertheless, some of the colonies which remained in French possession made considerable progress during this period, especially the French West Indies. The development of the sugar industry in these islands was favored by reciprocity treaties with England and the United States, and a little by the emancipation of the negroes in the English colonies; their total production of sugar increased from forty million pounds in 1817 to one hundred and seventy-eight million pounds in 1829, most of which passed through the hands of French merchants. Some improvements were also made in Senegal, and there were some efforts to reestablish French dominion in Madagascar. The foundation of the French empire in northern Africa was laid by Charles X's expedition against Algiers in 1830.

237. The July Revolution (1830), although it caused few great political changes, had a profound industrial and commercial significance. In the first place, it was the triumph of the commercial and industrial classes. Louis Philippe, the new "Citizen King," owed his elevation to the bankers, manufacturers, and shopkeepers of the large cities, especially Paris; influence passed from the great landlords to the great manufacturers and merchants. In the second place, this revolution turned France towards an English alliance and

a pacific policy. Had the Russian alliance, begun by the restored Bourbons and interrupted by the July Revolution, been continued, Russia would doubtless have aided France in pushing her boundaries to the Rhine, while pushing her own to the Danube. The rapid increase in the French army and navy under the restored Bourbons, had it been coupled with a continued alliance with so aggressive a power as Russia, might have rendered such efforts quite successful in view of the disturbed conditions then existing in central Europe. On the other hand, England as an ally would not even allow a French prince to accept the throne of Belgium. Although a continuation of the Russian alliance and a policy of territorial conquest might have been very gratifying to French pride and love of glory, it would not have permitted, as did the English alliance and Louis Philippe's peace policy, the continuation of the economic development already begun under the restored Bourbons.

238. The internal disturbances following the July Revolution interrupted for a time the development of industry and commerce. The excitement of the July Revolution cooled slowly, and numerous causes prolonged the discontent and provoked frequent riots. During most of Louis Philippe's reign there were fierce conflicts between capitalists and laborers, and various socialistic systems were developing, chief among which were those of St. Simon and Fourier. These conflicts were perhaps the logical outgrowth of the advance of the industrial and commercial capitalists to the supreme position in the state, for this class proved almost as oppressive as the landed aristocracy had under the *ancien régime*. It is not strange, therefore, that for a time during and after the July Revolution capital withdrew from the country in large quantities, and that industrial and commercial development was checked.

239. Foreign complications also threatened to break up Louis Philippe's peace policy. As the July Revolution had aroused many similar movements throughout Europe, the great question for the French government to decide was whether it should pose as the champion of the revolutionary party in other countries. Many French enthusiasts, with a large part of the masses back of them, were ready to "regenerate Europe" by French armies at whatever risk and cost. The new king, however, was willing to make many sacrifices rather than involve France in another general European war. These sacrifices were made very galling to the French masses by revolutionary leaders, and consequently the peace policy of the king was for some time very unpopular. As peace was very advantageous to the middle classes they generally supported Louis Philippe; his influence over the wealthy manufacturers, landlords, merchants, and bankers became very great. With such support, and by an extensive and skillful use of bribery, he managed to avert war in most of the foreign complications which threatened him.

240. The industrial and commercial progress during the reign of Louis Philippe was therefore very great after the excitement following the July Revolution had fairly cooled; the progress was especially rapid from 1838 to 1847. This reign was noted for the many applications of science to agriculture, manufactures, commerce, and sanitary improvement. Machines were introduced in large numbers, with a corresponding saving of labor, increase of production, and lowering of prices. Many workmen were temporarily thrown out of employment, but soon there were more employed than ever, and the suffering was not nearly so great as in England during her industrial revolution. There was a notable increase in the production and consumption of iron and steel during this period, and the

manufacturers of these articles emigrated from the wooded regions to the coal regions. There was also considerable progress in other industries. On the whole, agriculture was very prosperous during this period; but in 1845 and 1846 there were very bad harvests, which caused famine prices for foods and some frightful disorders. In spite of the customs duties which directly checked imports and indirectly checked exports by causing retaliatory tariffs, the foreign trade of France rose in 1846 to about \$523,000,000, of which about \$240,000,000 were exports. There was also considerable improvement in the transit facilities. The law of 1836 provided for a network of beautifully paved roads radiating in every direction from Paris. In 1838 Arago also mapped out a system of railroads radiating from Paris to all parts of France. The construction of the proposed railroads was at first left to private enterprise, which did not quickly respond; but finally the government, as we shall see, took other steps, and then the work proceeded more rapidly. This reign also witnessed many river, canal, and harbor improvements, a great improvement and extension of the postal service, and the construction of the first telegraph line between Paris and Rouen in 1845. Many useful and ornamental public works were constructed, and Paris and other cities were greatly improved. In 1833 a law providing for primary education was passed; in 1841 a law regulating the work of children in factories; in many other ways the material and moral condition of the working classes was improved.

241. The Revolution of 1848 threw France into a commercial and financial panic. Money was forced out of circulation, capital left the country, many factories were closed, and thousands of industrious workmen were thrown out of employment. Unfortunately, the provisional government which was created contained some socialists, like Louis

Blanc and Ledru Rollin, who carried through certain dangerous measures. It was at once proclaimed that the "state would guarantee employment to every citizen," and national workshops were opened, although no one knew what would be manufactured in them. The proclamation made the situation still worse. To those who had been thrown out of employment by the closing of factories were added swarms of hungry, worthless idlers, who flocked to Paris from all parts of the country or organized strikes for the express purpose of getting into the government workshops, where they could draw good wages without the trouble of working. In a very few weeks the crowd of idlers in Paris was thus swelled from about fourteen thousand to over one hundred thousand, which formed one vast hive of swarming disorder. In the April elections (1848) the socialistic extremists tried to intimidate and secure a majority of "red republicans" in the Assembly, and when they failed, they incited riots among the men of the workshops, who drove the Assembly out of its chambers (May, 1848). After the national guard had quelled this outbreak, the Assembly proceeded to pass measures against the national workshops, and then followed the Four Days in June during which Paris was a battlefield for a grand fight between the guards and the mob. This fight at first brought General Cavaignac to the front as the hero of the hour, but gradually his influence declined, and by various tricks and subterfuges Louis Napoleon was elected president of the republic for a term of four years. From the moment of his election it was almost a foregone conclusion that Louis Napoleon would turn the new republic into an empire. He courted the favor of the army and the clergy in various ways, and secured the support of the masses by measures improving the sanitary condition of their dwellings and the quality of their food, and by transferring

taxation from necessities to luxuries. He stimulated industry by encouraging the construction of railroads, canals, telegraphs, and in other ways, and he was greatly aided in his efforts for power by the revival of trade, the rise in prices, and the reopening of factories, which furnished employment to many. The law of May 31, 1750, disfranchising about one third of the voters of the country, gave Napoleon a good opportunity to test his strength and popularity. Accordingly, in November, 1851, posing as the champion of universal suffrage, he demanded the repeal of this law. The Assembly refused; the *coup d'état* of Dec. 2, 1851, followed, and later in the month he was elected president for ten years by an overwhelming vote. The next year the people elected him hereditary emperor by a still larger vote, and he was proclaimed as Napoleon III, Dec. 2, 1852.

242. The industrial and commercial réveil (1852-1860). Whatever may be said concerning the character and policy of Napoleon III, his reign witnessed an extraordinary industrial revival in France. Although his foreign policy, especially after the Crimean War, was for the most part unsuccessful, he did not involve the country very seriously in war until the disastrous Franco-Prussian conflict, and in the intervals between his various foreign complications he gave industry and commerce a good many years of peaceful development. Furthermore, while his government was the most expensive France had ever had, industrial progress was aided, directly or indirectly, by many governmental measures. The savings-bank system and the operations of mutual benefit societies were extended. Many credit organizations were formed, which enabled farmers to raise their mortgages, assisted manufacturers in building and extending industrial plants, and stimulated foreign and domestic exchanges: the *Crédit Foncier* (1852), the *Crédit Mobilier* (1852), the reorganized Discount Office

(1854), the General Society of Industrial and Commercial Credit (1859), the *Crédit Lyonnais* (1863), and the Society for Favoring Commerce and Industry (1864).¹ In some cases, however, these organizations favored too rapid a circulation of credit and consequently led to business failures. Over \$20,000,000 were advanced by the government to facilitate the draining and reclaiming of waste lands; the common lands were divided and sold to small farmers; the forests on the mountains were renewed. Boards of agriculture were created, elementary agricultural instruction was provided for in the schools; agricultural prizes were established, thus spreading better methods of tillage and breeding. There were many improvements in the roads, rivers, canals, and harbors. The railroad mileage in operation increased from 1364 miles in 1848 to 5469 miles in 1860. Steam navigation improved even more rapidly, and the government aided the establishment of steamship lines to America and from the Mediterranean ports to Asia. The reduction of the rate of postage to twenty centimes per letter throughout France quadrupled the number of letters sent during the period from 1848 to 1865. Telegraphic communication was established between Paris and the Crimea in 1855 by laying a cable in the Black Sea. The work of beautifying and improving Paris and other cities was continued on a larger scale than ever before. Paris, in fact, and a few other cities were almost completely torn down and rebuilt. Old crowded tenement districts were removed, and in their place were created beautiful boulevards, promenades, parks, gardens, public buildings, churches, and private residences. The material condition of the agricultural population was also greatly improved: mud huts gave way to brick houses, thatch roofs to tiles,

¹ Most of these credit institutions loaned government money upon first mortgages bearing five per cent interest.

and there were better barns and outbuildings. Steam machinery and mechanical improvements in nearly every industry were increased at a rapid rate, especially after the further reduction of duties on machinery in 1856. Numerous national and international expositions stimulated industrial activity, chief among which were the international expositions at London (1851) and Paris (1855 and 1867).

Owing to these varied encouragements and several fortunate circumstances over which the emperor had no control, the rich resources of France were developed more rapidly than ever before. Many French manufactures progressed steadily, keeping pace with the rapidly increasing wants of the people, and to a lesser extent feeding the more slowly developing foreign trade. The copper, lead, iron, and coal mines were worked more extensively than ever before. French manufacturers vied with English manufacturers in furnishing the French and other continental railroads with rails, locomotives, and rolling stock. France also turned out much hardware of other kinds, especially arms. There was also a great advance in the cotton, woolen, and linen industries. But it was most of all in the artistic industries that France then, as ever, excelled, — beautifully tinted and finely woven silks, porcelains, glassware, jewelry, fine paper, Parisian goods, etc. In these and similar industries France still took the lead, although England, Belgium, and northern Germany began to compete with her after the London exposition (1851). It was in agriculture, however, that France made the most remarkable progress during this period. The new methods of cultivation, the better fertilizers, and the more judicious breeding brought a great increase in production and a much finer quality of produce and stock. The rapid growth of the cities and the provisioning of the urban population, coupled with the influx

of gold and other causes, assured the farmers good markets and high prices for their steadily increasing produce. In short, while England marched at the head of the industrial and commercial world, France took the lead in agriculture. The United States and Russia were soon to be the great agricultural rivals of France, and Holland and Belgium were already ahead of her in some agricultural products; but France was easily predominant at that time in the production of grains and wines. Towards the close of the period she produced 1,060,000,000 gallons of wine yearly, more than one third of the total production of the world. At the same time she produced on the average 255,000,000 bushels of wheat, while Russia harvested 227,000,000 bushels, and the United States only 142,000,000 bushels. In 1860 France had 336 beet-sugar refineries, which turned out 277,600,000 pounds of sugar. France also produced a great variety of other agricultural products in considerable quantities. The retention of the protective system and other causes prevented as rapid a growth of foreign commerce as of agriculture and manufactures, but the exports nevertheless increased from \$254,000,000 in 1847 to \$350,000,000 in 1860. The imports exceeded the exports and consisted chiefly of raw materials and colonial products.

243. The discovery of gold in California and Australia was one important factor in this industrial and commercial revival. The gold from these sources began to flow into France just at the time when specie had been forced out of circulation by the Revolution of 1848, when even the reserves of the Bank of France had been almost exhausted. It had been necessary to force the circulation of paper money as a legal tender and to sustain public credit by various heroic measures. The gold from Australia and America, therefore, was a much needed article. The first

effect of the influx of gold, which was felt much more quickly than the influx of silver in the sixteenth century, was to raise prices to a much higher general level and to stimulate unwonted industrial and commercial activity. Unfortunately, all classes were not benefited alike by the change; some, especially renters and salaried people, suffered greatly from the rise in prices and were obliged to modify their style of living. Furthermore, the opening of the gold fields just at the time when revolution was raging, drew away quite a number of Frenchmen to the new eldorados.

244. Speculation and commercial gambling also characterized this period. The years from 1852 to 1856 may be called the "golden age" of the Paris Bourse. "London, which had been the financial center from the beginning of the century, now ceded the palm to Paris." The unusual extension of commercial credit, resulting from the formation of numerous credit institutions already referred to, was one of the most important causes of this speculative activity. The influx of gold was another important cause; those into whose hands the specie from the new mines happened to fall, began to invest eagerly in railway stocks, gas companies, mining stocks, city bonds, etc. The extension of the telegraphic system enlarged the field of speculation and intensified its activity. Unfortunately, this mania for making fortunes out of speculations and gambling was carried to a great excess and resulted in some serious business failures, and consequently retarded substantial development.

245. The commercial treaty with England, negotiated principally by Richard Cobden and Michel Chevalier, in 1860, marked the beginning of a new commercial period. The treaty was quite readily sanctioned by the British Parliament, but was forced upon the French people by the

emperor, in the face of the strongest kind of opposition from the manufacturing interests. In this treaty France agreed to abolish her prohibitions upon English cutlery, woolens, cottons, linens, silks, and carriages, and to substitute very low duties upon them; she also lowered her duties on coal, iron, bronze, steel, hardware, chemicals, and many other products. England, on her part, abolished all duties on French silks, bronzes, goldsmith wares, jewelry, gloves, artificial flowers, and millinery, and reduced her duties on other goods to a small revenue basis. One of the most important reductions was on French wines and brandies: the duty on wines was reduced from \$1.02 per gallon to sixteen cents, that on brandies from \$4.45 per gallon to \$1.57.

246. Similar treaties with other countries were soon concluded: with Belgium in 1861; with Prussia and the German Zollverein in 1862; with Italy and Switzerland in 1864; with the Hanseatic cities (Hamburg, Bremen, and Lubeck), Holland, Mecklenburg, Spain, Sweden, and Norway in 1865; with Portugal, Peru, and Austria in 1866. About the same time that these treaties were made, various laws and decrees permitted the free entry in French vessels of all raw materials for French manufactures, — wool, cotton, gums, potash, dyes, etc. Foreign grains coming in foreign vessels were subjected merely to a nominal inspection fee of eight cents per hundredweight; those coming in French vessels paid only four cents per hundredweight. The duties on sugars were reduced one half; the colonies were opened to free trade under all flags with all countries; the laws protecting the French merchant marine were abolished.

247. Various other circumstances favored an extension of French commerce during the years from 1860 to 1870. The work of building railroads and improving their equipment

continued and resulted in a great reduction in freight charges. The cost of production was greatly reduced in various ways, much to the advantage of buyers and sellers. Canal tolls were reduced, new maritime transportation companies were created, technical and agricultural schools were established, the postal and telegraphic services were further extended, the submarine telegraph was laid. The Universal Exposition at Paris in 1867 surpassed all preceding ones and stimulated industry and commerce. The specialization of industry, the growth of powerful corporations, and the legislation for regulating and protecting them; the opening of French commerce with China and Japan; the occupation of New Caledonia and Lower Cochin China; the new commercial relations with ancient Latin America which resulted indirectly from the unfortunate French expedition to Mexico; the construction of the great transalpine roads (Semmering road, constructed 1848-1854, the Brenner road, constructed 1857-1871); the reopening of the markets of the United States after the Civil War; the completion of the Suez Canal,—all these were factors in the remarkable extension of French trade and industry following the commercial treaty of 1860.

248. The cotton famine produced by the Civil War in the United States compromised for a time the complete success of the new commercial policy inaugurated by the commercial treaties with England and other countries. The importation of cotton in 1862 was less than one third of the importation of 1861, and this decrease caused frightful misery in the cotton manufacturing districts, especially in Normandy. Manufacturers, however, soon turned to India, China, Egypt, the Mediterranean coasts, and Brazil for their supply of cotton, with considerable success. By 1866 the importation had again increased to an amount

nearly equal to that before the war, and after that the American supply was again open and the development of the cotton industry was continued. It is to be noted that the commercial treaties helped to alleviate the suffering from the "cotton crisis," by giving France new markets for other goods. In particular, these treaties aided the extension of the woolen industry in the very districts most affected by the failure of the cotton supply, — in Roubaix, Fourmies, Amiens, Rheims, etc.

249. The growth of French trade and industry under the new commercial policy (1860-1870) was remarkably rapid in many directions. The commerce with England, which had increased only from \$14,000,000 to \$38,000,000 during the years 1827-1846, increased to \$360,000,000 in 1866. The export of French woollens attained an average of \$74,000,000 during the years 1865-1867, while the annual export in 1860 had been about \$44,000,000. The export of French silks to England was about doubled between 1860 and 1867; that of wines was more than quadrupled. The French manufacturers had especially feared an invasion of English cottons, but in 1870 they imported one fourth more raw cotton than in 1860. The French production of iron, far from being destroyed by English competition, increased from 602,000 tons in 1859 to 916,000 tons in 1869. The export of French fruits increased sevenfold during the decade 1861-1870; that of butter, eggs, and vegetables (especially potatoes) increased very rapidly. In spite of the increased European emigration to America, and the consequent growth of American agriculture, French agriculture was not yet seriously affected by the competition; the export of French grains continued to increase. The trade with other countries did not increase so rapidly as did that with England, but the total increase during this period was quite great. By

1869, the last year before the Franco-Prussian War, the export of French products reached \$655,000,000, the imports for home consumption, \$744,000,000. In addition to this "special trade," France had an important transit trade, consisting chiefly of goods passing between Great Britain and the Mediterranean countries. This transit trade brought the total "general trade" of France up to \$1,600,000,000 in 1869.

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CHAPTER XXVI

CENTRAL EUROPE (1815-1866)

250. German industry and trade during the great continental war. Germany derived several important advantages from the conflicts during the latter part of the eighteenth century. The war for American independence led to several measures for relieving the condition of German peasants and altering the antiquated restrictions on landed property. That war also stopped the export of tobacco from America, and consequently tobacco culture was successfully introduced into various German states, especially Baden, Thuringia, and the Palatinate. The French Revolution forced many nobles and other rich men to emigrate from France to Germany, taking with them much of their movable property; the French occupation of Holland also drove many exiles in the same direction, who thus helped to furnish Germany with artisans and capital. The large subsidies furnished Germany by England during the Napoleonic wars also stimulated trade and industry to a certain extent. The greater portion of these subsidies, it is true, was in the form of British manufactures, which were poured into Germany and Austria to supply the armies fighting against Napoleon; but these shipments swelled the trade with England, while the money subsidies encouraged German industry and agriculture to help feed and supply the armies. Furthermore, all the wars during the last quarter of the eighteenth century aided German agriculture by increasing the demand for German wheat

in the countries at war. During all these wars, also, the North German seaports developed a considerable trade, not only with England but with other countries. A direct trade sprang up between these cities and America, the West Indies, Russia, eastern France, the Rhine countries, Switzerland, and southwestern Germany. Hamburg profited more than any other German city from the exports of wheat, the imports of colonial products, the increasing trade with other continental countries and England, and the exiles from France and Holland; but other North German cities, like Bremen, Altona, Minden, and Lüneburg, also derived considerable benefit from the same sources. The capital accumulated by the increasing trade of the North German cities was loaned at low rates of interest, thus giving an additional stimulus to German agriculture and manufactures. The last quarter of the eighteenth century, therefore, was a more prosperous period in Germany. Her foreign trade increased; her farmers produced increasing quantities of wheat, wool, flax, hemp, beets, tobacco, and chicory, and larger numbers of horses, cattle, and sheep; her chicory mills, pottery works, distilleries, tobacco factories, and woolen and linen industries were more active.

The Peace of Amiens (1802) was hailed with special delight in Germany, because it seemed to foreshadow an era of further progress; but the peace was soon ruptured, and the German revival, so well begun, was suddenly checked. The trade of Hamburg and Bremen was cut off by the French occupation of Hanover; these cities were no longer able to trade openly and directly with England, their best customer. Gradually Napoleon's continental system was built up until nearly all the foreign trade of the North German seaports was made illegal, although much smuggling was carried on. The French occupation of

northern Germany (1805-1813) checked not only trade, but also manufactures and agriculture. Napoleon, especially after the conquest of Prussia (1807), levied very heavy taxes, and took enormous quantities of farm produce, horses, and cattle as spoils. Fortunately, central and southern Germany did not feel so sharply the thumb screws of Napoleon's continental system and the French occupation; in fact these sections were in several respects directly benefited by the French occupation and Napoleon's policy. The growth of wool, flax, beets, chicory, and tobacco received a new impulse; the linen, lace, and woolen manufactures of Silesia and Saxony were stimulated; as long as raw cotton could be secured cotton manufactures also thrived; mines were successfully worked, especially the silver and coal mines; many sugar refineries, distilleries, tobacco factories, chicory mills, and pottery works prospered. Stimulated by the demands of the French people and Napoleon's armies, a good trade was opened between France, southern Germany, and the Rhine countries. The stimulus given to manufactures in central and southern Germany led also to wholesale smuggling; large quantities of German goods were thus exported to England, America, Spain, Portugal, Russia, and Poland, while many imports were smuggled into Germany in exchange.

251. German industry and trade after the continental war. After the overthrow of Napoleon the northern ports of Germany were again thrown open to foreign trade, and quite an active traffic was soon developed, especially through Hamburg, Bremen, and Lübeck; but foreign countries at first profited far more than Germany by this renewal of trade. German markets were flooded with English, French, and Belgian goods. The German cotton, iron, and steel industries suffered most, having to compete with English cottons, and hardware from both

England and Belgium. For some time after the Napoleonic wars, therefore, Germany suffered a very severe industrial depression, which was all the worse because of her extremely backward economic condition at that time. Industrially she was far behind England and also inferior to France and Belgium; all these countries were much better equipped with the new machinery that was revolutionizing industry. German manufacturing was still done almost wholly by hand; even the mining and textile industries used very little machinery. The ultra-conservative German workmen clung very tenaciously to their old system of household industries. What few factories there were depended chiefly upon hand and animal power, with here and there one run by water; the steam engine was almost unknown. The backwardness of German industry is also evidenced by the condition of her foreign trade at that time. It was relatively far less important than it had been in the sixteenth century. The most important exports were raw materials and foods, especially grains; even a good deal of raw wool was exported instead of being made into yarn and cloth. Of course Germany exported some manufactures, but they were mostly made from home raw materials and by cheap hand labor. Furthermore, over 80% of Germany's population at that time was agricultural, very poor, and demanding little that it could not produce for itself. The home market, therefore, was quite limited.

The most fundamental cause of Germany's extreme backwardness was her weak, divided political condition, which, together with her central position in Europe, had long condemned her territories to be the battle ground of the continent. Her industrial and commercial development had thus been checked repeatedly, and several times almost stopped, especially during the Thirty Years' War

and the latter part of the Napoleonic wars. These repeated disasters had not only destroyed much capital, but also nearly killed the energy and enterprise of the people. For a long time her unprogressive farmers, handicraftsmen, and merchants had toiled for a mere livelihood rather than gain. Consequently they had accumulated little capital to replace that destroyed by ruthless foreigners.

Manifestly there was little chance for industrial and commercial progress without capital, energy, and enterprise, and where these were to come from was a conundrum as long as Germany remained so preponderantly an agricultural nation dominated by the extreme conservatism of unprogressive landlords and ignorant peasants. It must be remembered that this population was dependent upon agricultural resources that were about the poorest in Europe. Furthermore, German farmers were hampered longer than those of most leading European countries by the retention of the mediæval system of scattered holdings, with its attendant burdensome regulations and inefficient farming methods, and by the continuance of practical serfdom. Even after the tardy emancipation of the serfs (1807-1816), and the Prussian law of 1820 permitting contiguous individual holdings, agricultural progress was very slow, owing to the opposition of the landlords to changes, the lack of good farming methods among the peasants, and their lack of ambition.

To make matters even worse, what little enterprise and energy were still left among Germany's manufacturers and merchants was seriously handicapped by burdensome restrictions and too close supervision on the part of the numerous petty governments. Although the Napoleonic wars reduced the number of German states to thirty-nine, wiping out the smallest and most backward ones, political disunion was still the curse of the country. Real economic

progress had yet to wait for further political reform. Each state imposed duties upon its German neighbors and foreigners, and some also had internal tariffs. For example, Prussia had sixty-seven distinct commercial and excise systems within her own borders. Some states, even the smallest, were mere conglomerations of widely scattered territorial fragments. There were many postal systems, a bewildering variety of weights, measures, and coins, and divergent laws on all important economic subjects.

252. The Zollverein, which was formed to remedy as much as possible the economic evils growing out of political disunion, was far the most interesting and important fact in the commercial and industrial development of Germany during this period. The genesis of the Zollverein is to be found in the gradual formation of three smaller unions, — one in southern Germany clustering around Bavaria, one in northern Germany under the leadership of Prussia, and one centering in Saxony and forming a connecting link between the other two. Prussia from the first was the most active and aggressive in these movements toward a general customs union. In 1818 she abolished all her internal tariffs, but retaliated against England, France, and other protective countries, including her German neighbors, by imposing duties on imports. At the same time Prussia pursued a comparatively liberal reciprocity policy, and negotiated commercial treaties with her German neighbors and some other countries. Between 1818 and 1828 she signed such treaties with Schwarzburg-Sondershausen, Hesse-Darmstadt, Mecklenburg-Schwerin, Hamburg, Bremen, Lubeck, Denmark, Sweden, Norway, England and her colonies, and the United States. Similarly, Bavaria, Wurtemberg, Baden, and other South German states, which had opened commercial relations with France during the continental war, retaliated against her

by forming commercial leagues among themselves when she bolted her gates against their goods after the overthrow of Napoleon. This commercial union in South Germany gradually extended itself northward, and the northern union under Prussian leadership gradually extended southward until the two met in the third group that was forming around Saxony as a center. The increasing pressure of foreign competition, the cost of administering so many separate tariffs, the impossibility of commercial and industrial progress under such diverse systems, the difficulties of transportation and communication, and the increasing perplexities connected with the joint navigation of great rivers like the Rhine, Elbe, Oder, and Weser, all favored the formation of the Zollverein. On the other hand, the fear of Prussia, and an unwillingness to accept in full her plan of union, were serious hindrances to the speedy union of the three groups. Finally, however, in 1833, the union was effected, and the German Zollverein became an accomplished fact; by 1836 it embraced nearly all the German states. In 1841 Brunswick joined the union; in 1842, Luxembourg; in 1851, Hanover. By 1854 it included every German state except Austria, Holstein, Mecklenburg, Lauenburg, and the three Hanseatic cities—Hamburg, Bremen, and Lubeck; by 1867 it controlled the commerce and industry of over thirty-eight million people.

It should be noted that one reason why Austria did not enter the union was her unwillingness to reduce the very high duties which she had retained from the previous century. In fact, it seems to have been the deliberate purpose of Prussia to exclude Austria from the Zollverein by keeping its duties comparatively low and reducing them still further by commercial treaties with England, France, Holland, Belgium, and other countries, in order to secure

for herself a dominant influence in Germany. For some time, however, Prussia was opposed in her free-trade tendencies. While the tariff of the Zollverein (1834), like the Prussian tariff of 1818, imposed comparatively moderate duties, these became relatively higher as prices fell, and some actual increases were made in the duties between 1834 and 1850, which made the tariff even more protective. But the German farmers, who had not yet felt the competition of foreign agricultural products in the home market, gradually became more anxious to secure good foreign markets for their own increasing surplus of grain and other products. They therefore combined with the merchants and political liberals to secure lower import duties. This and other causes turned the tide of public sentiment in the Zollverein more and more toward free trade, after 1850, thus aiding Prussia in her great ambition.

253. The formation of the Zollverein was followed by a gradual improvement in Germany's economic condition. Agricultural schools were established, new fertilizers were discovered, many farmers gradually adopted better methods of cultivation, and consequently Germany's agricultural output increased. She was thus able not only to produce most of the food required by her rapidly increasing population, but also to continue exporting quite large quantities of grain and cattle. At the same time her manufactures and foreign commerce became relatively more important than before. At first many of her manufacturers opposed the internal free trade established by the Zollverein. The least progressive among them certainly did suffer greatly from the change, but others soon found that the increased competition within the union was more than offset by the wider home market thus created. Even after the duties on foreign goods entering the union were removed or lowered, the more progressive German manufacturers were

able to hold their own and even extend their business. Gradually machinery and steam power were introduced into the leading industries, elementary and technical education was developed, and some important applications of science to industry were made. Germany soon ceased exporting chiefly foodstuffs and raw materials, and began to export more manufactures; the importation of foreign manufactures was checked, and the imports of raw materials and colonial products increased. All these were sure signs of industrial progress.

Especially noteworthy was the development of wool manufactures. Instead of exporting large quantities of raw wool, as she formerly had done, Germany soon used all of her own supply at home, and it was not very long before she began importing wool to feed her growing manufactures. Gradually German woollens not only supplied most of the home demand, but also found their way into foreign markets. Likewise the silk and cotton industries, aided by the introduction of machinery and the immigration of English foremen, made considerable progress, thereby necessitating increasing imports of raw silk and cotton. The linen industry developed more slowly until after 1850, when it also began to make substantial progress. By 1869 the various German textile industries were using 2.5 million spindles.

The increased demand for machinery and fuel, and the gradual development of railroads, which created a demand for rails, locomotives, and other equipment, stimulated the development of the German iron and coal industries. By 1865 the iron output of Prussia alone was worth about \$45,000,000 annually; the same year one factory in Berlin turned out 142 locomotives. The Krupp cannon works at Essen were already beginning to attract attention. German metal workers constructed a colossal statue of William I

for the Paris Exposition of 1867, which won the admiration of the world. There was also considerable progress in some other German industries. At the close of the Age of Steam, German manufacturers supplied most of the home demand for sugar, beer, woolens, linens, cottons, hardware, glassware, paper, pottery, porcelain, dyes, chemicals, and considerable quantities of many other articles, as well as a certain amount for export.

254. Economic condition at the close of the Age of Steam.

We must not get an exaggerated conception of Germany's progress after the formation of the Zollverein. Her economic condition at the close of this period was still very backward as compared with that of England and other leading industrial and commercial nations. Germany's people were comparatively poor, with a correspondingly small purchasing power and insufficient capital for extensive development. She was still far behind England and other leading countries in the use of machinery and steam power, with a much smaller industrial output. Her foreign trade was only about one tenth as large as the "general trade" of the United Kingdom. Germany's backward condition is evidenced by the crucial test of her per capita pig-iron consumption, which was only 23 pounds in 1850 and 75 pounds even in 1870, while that of England during the same years was 187 and 380 pounds respectively. Germany was very tardy in beginning railroad construction, and had only 6980 miles as late as 1860, while England, with a much smaller area, had 10,430 miles. Even in 1870 Germany had only 11,730 miles. Furthermore, she had done very little before 1870 to improve her inland waterways. The consent of various petty governments had to be secured for every important railroad extension or waterway improvement. These meager transportation facilities, coupled with very high monopoly freight

rates, were serious hindrances in a country where long hauls were so essential for extensive industrial and commercial development. They largely frustrated the aims of the Zollverein by restricting the home market to a small area, except as it could be extended somewhat by river navigation. Even where river navigation existed, however, it was often obstructed by gild regulations, which forbade vessels going beyond a certain point, thus compelling reshipment of cargoes. Furthermore, Germany had no colonial, and only a few foreign, markets to supplement her narrow home market. She had few ocean shipping facilities of her own; in 1871 her total registered tonnage was only 982,355 tons, of which only 8.3 % was steam tonnage. Another evidence, as well as cause, of Germany's backwardness was the continuation of diverse systems of money, weights, and measures. While the Zollverein had provided for uniformity among the various states, this was not actually realized until after the formation of the North German Confederation (1867). Moreover, the Zollverein, prior to 1867, lacked uniform legislation regarding patents, warehouses, and other important industrial matters. It must be remembered that every new law or change in an old law required the consent of every state in the union, no matter how petty. Germany's economic progress was also hindered by the revolutions of 1848, various European wars, her continual struggle with Austria, very poor banking facilities, and the tariffs of various countries, especially Russia, France, Spain, and Austria. It may well be claimed also that Germany's increasing tendency toward free trade after 1850 was a poor means of meeting the competition of the more highly developed industrial nations.

Germany, therefore, at the close of the Age of Steam, showed few signs of the unparalleled industrial and commercial progress that she was to make in the next period,

except that the formation of the Zollverein was an important step toward the more complete union that was absolutely essential for any great economic development.

255. The great continental war proved quite as disastrous to Austria's industry and commerce as it was humiliating to her political and military reputation. Napoleon's victories at Marengo, Austerlitz, and Wagram produced no more direful results in Austria than did his Berlin and Milan decrees, which withered the commerce and industry of the fated country. In Bohemia alone, the center of the linen industry, the number of flax spinners fell from three hundred and twenty thousand to forty thousand within a very few years, and this instance is only typical of the general industrial decline. To make matters worse, the Austrian government emerged from the war in a bankrupt condition, and for many years after Napoleon's overthrow the country was cursed by the reactionary and repressive policy of Metternich, which smothered progress in almost every line of activity. The Austrian states were badly split up by racial, religious, and other differences, and the government seemingly did not know how to create any bonds of self-interest between them. These interstate differences were accentuated by the foreign and internal commercial policy of the government. There were as many distinct tariff systems as there were states in the empire; foreigners were positively prohibited from engaging in commerce. For years after the continental war many of the leading industries (for example, the salt, tobacco, and gunpowder industries) were monopolized by the government. The duties on foreign textiles were absurdly high,—about \$5 per pound on silks, \$1.60 to \$3.20 on linens. In almost every particular the commercial policy of the government was illiberal. The growth of the German Zollverein and the wars in Turkey checked the growth of Austrian

industry and commerce by cutting off valuable markets; the Greek pirates inflicted serious losses.

256. In spite of all obstacles, however, Austrian industry and commerce made gradual progress after the continental war. The splendid agricultural resources of the country, together with the industries directly founded upon them, were more carefully developed. The Italian provinces, naturally very fertile, were better cultivated than before, and yielded large quantities of raw silk, wines, fruits, and oils; silk spinning and weaving also prospered in these provinces. Bohemian and Moravian farmers devoted themselves very successfully to sheep farming, applying more capital and paying more attention to proper breeding, thereby improving the quality and increasing the quantity of wool produced. The large supply of excellent wool produced in these states furnished a good basis for a flourishing woolen industry there. Bohemia yielded large quantities of flax and was again the center of a prosperous linen industry, and her fine glassware was still in great demand. The growth of the cotton industry along the lower Ems was quite rapid, and silk spinning and weaving flourished in the same region. Leather was tanned on a large scale in Hungary. The salt industry was still important in Bohemia, Hungary, and other parts of the empire. In 1840 the mines yielded seventy thousand ounces of gold, one million ounces of silver, and considerable quantities of copper and other metals. The coal output was comparatively small, but large quantities of wood, charcoal, timber, tar, turpentine, and potash were produced. Various parts of the empire also yielded large quantities of grains, potatoes, cattle, hogs, horses, tobacco, wines, and considerable amounts of other produce.

Although the foreign commerce of the empire was not at all commensurate with its splendid resources, there was

a gradual growth up to the year 1836, when it reached a total of about \$100,000,000, which was about evenly divided between exports and imports. This trade was chiefly carried on through the ports of Trieste, Fiume, Ragusa, and Venice, but a considerable quantity of Austrian products, especially Bohemian glassware, was sold at the fairs of Leipzig and Frankfurt, in spite of the Zollverein.

257. For several years, beginning in 1836, there was a serious industrial and commercial panic. The chief cause for this was the speculation in government loans and railroad shares, which absorbed the profits of trade and industry. The effects of the panic may be judged fairly well from the following statistics of the foreign trade of Trieste, the chief seaport of the empire. In 1836 the imports of that city were about \$31,000,000 and the exports about \$29,000,000; by 1841 these figures had fallen off to \$19,600,000 and \$16,400,000 respectively.

258. The recovery from this panic was slow at first, but after the revolution of 1848 various causes led to more rapid development. Freedom of internal trade was established, import duties were lowered, commercial treaties were made with the Zollverein, England, Italy, and other countries, and most of the restrictions on industry were abolished. There was also quite an extensive development of roads, canals, railroads, steamship lines, and the postal service: the steamboat service on the Danube was improved; the Austrian Lloyd, originally founded in 1827, now furnished steam connection with Venice, Alexandria, Constantinople, and other ports in Italy, Greece, and Turkey; a special direct train service to North Germany was established, connecting there with steamships to England and France. Consequently there was a new outburst of business activity, in spite of the high taxes and depreciated paper money.

Foreign trade increased quite rapidly, reaching a total of about \$250,000,000 at the close of the period, of which a little less than half were exports. At the same time the agricultural parts of the empire developed steadily, while other parts, especially Bohemia, developed their mines and manufactures. Toward the close of the period, however, the development of Austrian industry and commerce was again retarded by the loss of the Italian provinces in the Austro-Sardinian War (1859-1860), by the cotton famine during the Civil War in the United States, and by the war with Prussia (1866).

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CHAPTER XXVII

THE REMAINDER OF EUROPE DURING THE AGE OF STEAM

259. The countries to be considered in this chapter may be conveniently grouped into two classes: (1) those which, chiefly on account of their small size, were commercially important because of their geographical position or their development of manufactures; (2) those possessing splendid natural resources, hence not essentially manufacturing countries, but rather furnishers of foods and raw materials. The countries of the former class which we still have to consider are Holland, Belgium, and Switzerland; those of the latter class, Russia, Poland, Denmark, Norway and Sweden, Italy, Spain, Portugal, Turkey, and Greece.

260. **Holland.** The French occupation (1795-1813) proved very disastrous to "brave little Holland." The French levied her men and money; the English stole her colonies and much of her trade; Hamburg and Bremen also secured a considerable portion of her trade; what commerce she did continue to conduct was the prey of all the enemies of France; capitalists and merchants left the country, and industry consequently decayed; the East India Company and the Bank of Amsterdam failed. The Treaty of Amiens restored the Dutch colonies, except Ceylon and a few other much less important ones, and during the brief interval of peace her industries were revived and an active trade again developed. After the war reopened, however, Dutch vessels and cargoes were

captured on every sea and Dutch merchants in English ports were seized. Trade again declined rapidly and was finally almost destroyed by Napoleon's Berlin and Milan decrees. Little besides smuggling and a small coasting trade remained, and to make matters worse there was a serious inundation of the sea in 1809.

In 1815 Holland had some of her best colonies restored to her and received Belgium in lieu of Ceylon and Cape Colony, which remained in the hands of the English. For a time Dutch capitalists derived considerable advantage from their heavy investments in Belgian industries, and Dutch merchants profited by selling Belgian cottons, linens, woolens, leather, hardware, and coal in Holland and her colonies. But on the whole the acquisition of Belgium was a poor compensation for the loss of the profitable cinnamon trade with Ceylon, the industrial decline in the other colonies, and the consequent shrinkage in their trade. Furthermore, out of deference to his new subjects, King William allowed industrial Belgium to make the law for commercial Holland, and the resulting high tariff seriously injured Dutch trade by provoking retaliatory tariffs. The growth of Antwerp and Ostend during the period of union (1815-1830) was at the expense of Amsterdam and Rotterdam.

In addition to investing heavily in Belgian manufactures, Dutch capitalists soon began to make strong efforts to revive colonial industries and open new markets. In 1824 the Dutch Trading Company was formed for the purpose of reviving manufactures, commerce, and shipping. This company was at first chiefly successful in opening a market for Belgian manufactures, but it also paved the way for a revival of the trade and industries of the Dutch colonies, especially Java. At the same time Dutch home manufactures began to revive; Leyden and Tilburg again took

an honorable rank in the manufacture of cloths; Hilvershum and Deventer were noted for their carpets; Zutphen for leather; Amsterdam for porcelain; upper Brabant for linen.

The separation from Belgium in 1830 marked a new era in the agricultural, industrial, and commercial development of Holland. Land was reclaimed from the sea on a large scale, agriculture was again greatly improved, and large quantities of dairy products and cattle were exported. The manufacture of brandy, spirits, linens, cottons, sailcloth, leather, and other articles was developed. Railways were rapidly built. Commercial treaties were signed with nearly all the leading countries. But the most important factor in the renewed prosperity of Holland was the development of her colonies, especially Java. In 1830 Governor Van den Bosch introduced the "culture system," by which the natives, instead of giving the government 40 % of their main crop (rice) as land rent, gave 20 % of their time in working 20 % of their land for the government under contractors. While this system was ethically unjust and had grave economic defects, it led to a development of more profitable cultures than rice. In ten years (1829-1839) coffee exports increased from 19 to 50,000 tons, sugar exports from 4625 to 50,000 tons, and indigo exports from 23 to 425 tons. During the next thirty years sugar exports were considerably more than trebled. At the same time many other cultures were introduced or extended: tobacco, tea, rice, cinchona, cocoa, pepper, cinnamon, ginger, cloves, nutmegs, cochineal, silk, etc. Batavia became a great commercial center for the exports and imports of Java, and also an emporium for reshipping the exports and imports of other islands. Java's exports rose from \$7,263,000 in 1825 to \$47,000,000 in 1865; her imports, from \$5,813,000 to \$25,000,000.

The increased exports from the colonies naturally reacted very favorably upon the industry and carrying trade of the mother country. As Dutch manufacturers could not supply the increasing colonial demand for European goods, other countries sent their products to Amsterdam and Rotterdam for reshipment to the Dutch colonies, receiving thence a large part of their supply of colonial products. Holland was again one of the greatest intermediaries between Europe and the East Indies, and her dockyards could scarcely build ships fast enough to keep pace with the increasing commerce. In 1866 her imports amounted to about \$200,000,000 and her exports to about \$170,000,000.

261. Belgium profited more than Holland from the fifteen years of union. Dutch capital developed the manufactures of Ghent, Bruges, Liége, and Verviers; a bank was established at Brussels; Antwerp and Ostend became flourishing commercial centers. Belgian linens, cottons, woolens, leather, hardware, and coal found good markets in Holland and her colonies. On the other hand the high tariff provoked a retaliatory tariff in France and cut off the French markets. Furthermore, the differences between the two countries in language, race, religion, customs, and industry finally led to a war for independence which seriously injured Belgian industry and trade. In the bombardment of Antwerp property worth about \$3,000,000 was destroyed. The Dutch gave another severe blow to Belgian trade by closing the mouths of the Scheldt and the Maas; Antwerp especially suffered from this policy. Belgium, after separating from Holland, also lost her profitable commercial relations with the Dutch colonies, and Holland for some time secured her coal, cottons, woolens, linens, and hardware from Germany rather than from Belgium. Many Belgian manufacturers removed to Holland, and Dutch capitalists withdrew their capital from Belgium to invest elsewhere.

Although Belgium felt these effects of her separation from Holland for some time, her industries gradually recovered and entered upon a new period of prosperity. Some of the most important factors in this new development should be noted. In the first place, Belgium had the densest population in Europe, hence a good supply of cheap industrial labor. She also had numerous and splendid roads and canals; she profited by a well devised and rapidly developed railway system under governmental control; her king was beloved and her government was well administered. In 1835 the Belgian National Bank was established, about the same time numerous joint-stock companies were formed for manufactures, mining, and railroads, most of which succeeded; government subsidies and loans made up for the deficiency of private capital; flax was more extensively cultivated; the abundant coal resources of the country were properly developed, thus supplying fuel for her factories; Belgian manufacturers shrewdly profited by the latest inventions and improvements in machinery. There was a commercial panic in 1837 and 1838, and the Belgian Bank suspended specie payments, but Belgian industry was too sound to be permanently injured. The crisis rather tended to stimulate a search for new markets. Commercial intercourse with France was gradually resumed and became very important within a few years; for some time before the extension of the French railroads to Havre, Antwerp was the chief northern outlet for the products of the French interior. Similarly, Antwerp for some time had almost a monopoly of the land trade of western Germany, on account of the splendid system of Belgian railroads, which were quite early extended to all the leading manufacturing cities of that region. Antwerp also had an extensive land trade with Austria and central Germany by means of the same railroad system, and quite an important maritime trade

with Trieste. Ultimately much of this land trade between Antwerp, on the one hand, and France, Austria, and Germany, on the other, was cut off by the completion of the railroads to Havre, Rotterdam, Hamburg, and Bremen. In another direction, Belgium gradually renewed commercial relations with Holland, to the mutual advantage of both countries; a commercial treaty was signed between them, and finally Holland opened the Scheldt River and freed it from tolls. This latter event gave a new impulse to the commerce of Antwerp. Ostend also became very important commercially during this period, though not so much so as Antwerp. In addition to her commerce, Ostend possessed extensive manufactures of lace, cotton goods, and leather, and was the great center of the Belgian fisheries. The other important industrial centers were too numerous to mention here. The foreign trade of Belgium at the close of this period amounted to \$280,000,000, about evenly divided between exports and imports. She was essentially a manufacturing country, most of her trade was conducted in foreign bottoms, and she was dependent upon other countries for a large part of her food supply; her efforts at colonization were unsuccessful.

262. Switzerland. For several centuries before the French Revolution each of the most important Swiss towns possessed distinctive industries of its own. After the revocation of the Edict of Nantes (1685) many skilled French refugees settled in these towns, developed and improved the native industries, and introduced others. By the close of the eighteenth century the industries of Basel, Zurich, St. Gallen, and Geneva had become quite important; these towns were noted for their clocks, watches, silks, ribbons, linens, cottons, and calicoes. The French Revolution gave a rude shock to the prosperity of the Swiss. Their supply of raw materials, which had been

derived chiefly from English merchants, was cut off by Napoleon's continental system. The Swiss, however, encouraged a contraband trade through their mountain passes, and considerable quantities of goods thus passed to and fro among the countries bordering upon their territory. Much legitimate traffic between the various French possessions was also attracted through Switzerland on account of her fine roads and central position; and yet the French occupation was on the whole disastrous to Swiss industry. After the relaxation of Napoleon's blockade, Swiss industries gradually became more prosperous and extensive than ever. Steam power and machinery were introduced and large factories were created. Swiss prosperity was also aided by the introduction of free trade, the abolition of all internal taxes and duties on transit, and the building of railroads. By the close of the Age of Steam she was exporting considerable quantities of watches, clocks, jewelry, silks, ribbons, and cottons, besides cattle, cheese, wine, spirits, hides, straw plait, and hardware.

263. Russia. Turning now to those countries whose commercial importance during this period was due chiefly to their supply of agricultural produce and raw materials, we consider first of all Russia, a country which already showed unmistakable signs of that restless aggressiveness in her industrial and commercial development, as well as political policy, which was to be one of the most striking characteristics of the succeeding period.

We have already seen to what an extent Russian commerce and industry were developed by Peter the Great and Catherine II. Before the outbreak of the French Revolution Russia had already begun to export large quantities of grains — chiefly wheat — and various raw materials to many European countries. St. Petersburg, Riga, Revel, and the other Baltic ports thrived, and after the acquisition of the

Crimea and neighboring provinces, the Black Sea ports, especially Odessa and Kherson, developed an active trade with Marseilles, Genoa, and other cities of the western Mediterranean. During the continental war, the fear of the English navy prevented other countries from sending their ships to Russian ports, and the trade in Russian grains and raw materials gradually fell almost entirely into English hands, which fact also extended the use of English goods in that empire. But England's monopoly of Russian trade was not secured without opposition and interruptions. In the earlier stage of the continental war, Napoleon took advantage of Paul I's hostility to England and secured his assistance in forming the Northern Maritime Confederacy. The czar promptly closed the Russian ports against English trade, seized English vessels lying there, and imprisoned their crews. The Russian aristocracy, however, wanted to sell their grains and hemp to England, and this desire was an important cause of the assassination of Paul. Knowing this, the new czar, Alexander I, practically discontinued the blockade, and the Russian farmers again found an outlet for their produce in English markets. The Peace of Amiens also enabled Odessa and other southern ports to reopen their trade for a time. In the Treaty of Tilsit (1807) Alexander agreed to renew the continental system, but he never favored with good grace its rigid execution, because he soon discovered that it was ruinous to Russia's trade and industry. Her grains, hemp, timber, etc., which she had been in the habit of exporting, were altogether too bulky to smuggle easily, while the prices of colonial products and manufactured goods, which she needed to import, were made excessively high by the blockade. The impossibility of selling her staple exports made gold leave the country rapidly to pay for the high-priced imports. Russian paper money depreciated at an alarming rate, and

even the ruble fell one fourth in value during the years 1808-1810. After enduring the continental system for five years, Alexander became convinced that it was no longer endurable. Accordingly, in 1812 Russia broke the Treaty of Tilsit and again opened her markets to England. In the war with Napoleon that followed, Russia suffered severely for a time; the finances of the government were crippled, the paper money depreciated still further, commerce and industry were badly deranged. Peace, however, brought a revival of prosperity; domestic industries were again developed, and the exportation of staple products was resumed. England and Russia, in particular, were again drawn into close commercial relations, because each country needed the products of the other.

Russia, in 1815, considered the question of free trade, but, like most continental countries, she soon decided in favor of a protective policy. The bad harvests in 1816 and 1817 in England and on the continent led to an unusually large export of Russian grain, which caused a reciprocally large importation of manufactured goods. The export of grains decreased again after these bad harvests, but the manufactures continued to come in to feed tastes already acquired. This raised an outcry in Russia against foreign competition, and in 1821 an almost prohibitive tariff was adopted for the purpose of encouraging the use of home rather than foreign manufactures. Under this protective system some old Russian industries progressed and some new ones were called into existence, but this industrial growth proved artificial and the tariffs seriously hindered the growth of Russian commerce. In 1850, 1857, 1867, and 1869 Russia successively lowered her import duties, although they were still quite high. These concessions were made chiefly in order to open the West to her agricultural products and raw materials, and to

secure foreign capital for constructing railroads, which were very necessary to supplement her river system.

The territorial growth of Russia during this period had a very important influence upon her commercial and industrial development and must therefore be briefly traced. In 1815 Russia retained Bessarabia, Finland, and the Persian border provinces. In 1829, by the Treaty of Adrianople, Moldavia and Wallachia practically became appendages of Russia. At the same time she kept some islands at the mouth of the Danube; the Bosphorus and the Dardanelles were opened to merchant ships; the navigation and trade of the Danube and the Black Sea were made free; and Turkey bound herself financially to Russia. The Treaty of Unkiar Skelessi, four years later, reduced Turkey almost to a dependency of Russia, and a secret article closed the Dardanelles to all but Russian vessels. These aggressions, however, soon aroused such hostility that in 1841 the Treaty of the Straits closed the Bosphorus and the Dardanelles to all foreign ships in times of peace. Then came the Crimean War, which impaired the resources of Russia, injured her industries and commerce, confused her finances, destroyed her control of the Black Sea, and compelled her to surrender her protectorate over the Christians in the Turkish dominions and to restore some small strips of territory on the Turkish frontier. But although Russia was thus obliged to give up her hope of conquest in the southwest, and of dominion over Turkey, and was also obliged to withdraw temporarily from active participation in western affairs, she now hurled herself all the more vigorously towards the east and south-east; rebellions were vigorously put down in the Caucasian provinces; the Turcomans were subdued (1866-1868); the development of western Siberia was begun; the Treaty of Pekin, signed with China in 1868, gave Russia the left

bank of the Amur and the great arsenal of Vladivostok. The long arms of the Russian bear were thus reaching out eagerly for new territories and commercial opportunities in the East.

In spite of her losses Russia's position in Europe was only temporarily impaired by the Crimean War. At the close of that war she was on intimate terms with Prussia, the coming leader of Germany, on friendly terms with Sardinia, the future champion of Italian unity, and growing in favor with France. Furthermore, the failures of that war thoroughly aroused the Russian people, and the new czar, Alexander II, responded to their cries for reform. Various branches of the central administration and the system of local government were quite thoroughly reformed; in 1861 the abolition of serfdom, one of the most stupendous reforms in history, was effected. In short, a new régime seemed about to dawn. Unfortunately, a little later the Polish insurrection (1861-1863) brought a reaction. This insurrection was not only disastrous to the Poles, but destroyed Alexander's confidence in the party of moderate reform and gave the reactionists in Russia an opportunity to undo much that had been accomplished.

The industrial and commercial development of Russia during the decade following the Crimean War was much greater than during any previous period of like duration. In 1857 the great Russian Railway Company was formed with the aid of foreign capital; during the next thirteen years about four thousand miles of railroads were built. This extension of the railroad system, although it was still very defective, and the introduction of steam navigation upon her splendid river system were important factors in the development of Russia's foreign and domestic trade. The lowering of her tariff and the emancipation of the serfs also greatly aided in the new economic development. The

progress of Russia towards the East was another factor in her increase of trade. As a result of these and other causes, Russia's foreign trade increased very rapidly during the decade following the Crimean War. At the close of that decade and of the period we are now considering, her foreign trade amounted to about \$260,000,000, the exports exceeding the imports by a few million dollars.

264. Poland. The fifteen years following the overthrow of Napoleon formed a period of unexampled industrial and commercial prosperity for Poland. Never did Warsaw shine so brilliantly; her population was 180,000. The population of the kingdom increased from 3,138,728 in 1815 to 4,139,222 in 1830. Roads were opened in every direction and Poland grew rich from agriculture and trade. German weavers settled in the country and improved the woolen manufactures. Alexander I took an interest in the pacification and progress of Poland, which was for some time very beneficial. The revolution of 1830 checked this prosperity, but Poland gradually settled down again to a steady development of her agriculture, manufactures, and trade. She exported wheat, flax, hemp, timber, turpentine, raw silk, furs, hides, tallow, horses, cattle, glue, horns, etc.; large quantities of wool were grown, and woolens, linens, cottons, silks, brandy, paper, glass, and agricultural implements were manufactured. About two thirds of her trade was with Russia, but large quantities of exports also passed down the river Vistula to the Baltic, whence came a considerable portion of her imports. The total foreign trade of Poland at the close of this period was about \$64,000,000, the exports being a little greater than the imports.

265. Denmark prospered greatly by the wars of the latter part of the eighteenth century, especially the war for

American independence, and took advantage of them by engaging in an active trade with the East and West Indies. The decline of Holland under French occupation still further aided the development of Danish shipping and commerce. During the first half of the continental war most of the German trade with England and other countries was carried on through Denmark, and there was also a strong demand in both England and France for Danish agricultural produce. The bombardment of Copenhagen in 1801 was disastrous to Denmark, and that of 1807 was still more so; in the latter year England captured or burned seven hundred Danish ships because the Danes were suspected of intending to aid Napoleon. No sooner had England struck this blow than Napoleon struck another by forcing Denmark into his continental system. Although the legitimate trade of Denmark was greatly restricted during the latter part of the continental war, considerable smuggling was still carried on.

In 1814 Norway was taken away from Denmark, and this was another check to her development; but her agriculture gradually recovered its lost ground, and in ten years she was exporting as large quantities of grain, butter, horses, and rape seed as ever, chiefly to England, France, and Germany. Husbandry continued to develop and exports to increase, but in 1864 Denmark met with another serious loss when Schleswig and Holstein were wrested from her. These provinces had been very valuable agricultural and pastoral districts, had possessed considerably more than one half of the Danish marine, and Schleswig had been made doubly valuable by the digging of the Eider Canal. Besides, the war which Denmark waged in the attempt to hold these provinces cost her a good deal and proved quite destructive to her trade and industry. After thus losing a large part of her marine in

surrendering Schleswig, Denmark continued to lose her carrying trade, most of which was picked up by England. The Danish West Indies lost their importance; the trade with China and the East Indies was never regained; the Danish possessions in India went to England in 1845, those on the Guinea coast in 1850. In spite of all these losses, however, Denmark continued to prosper to a considerable extent; her finances were in a good condition; she devoted herself all the more attentively to agriculture, dairy farming, and cattle rearing, and exported a good deal of produce. There was no coal or iron in the country and few raw materials, and yet she developed a few manufactures, especially brandy, sugar, and coarse textiles, which were encouraged by protective tariffs. The total trade of Denmark at the close of this period was about \$60,000,000, the exports constituting nearly two thirds of this.

A little should be said here concerning the peculiar claim which Denmark maintained for so long a time to the exclusive jurisdiction over the strait connecting the North and Baltic seas. Danish jurists based those claims partly upon ancient charters and immemorial prescription, and partly upon the expense incurred by Denmark in the maintenance of lights and buoys. For centuries, therefore, Denmark had levied Sound dues upon all shipping passing through the strait in either direction, a policy which gave rise to much trouble and several wars. In 1826 the United States obtained a reduction of the tolls upon her own shipping through the strait; in 1848 she offered \$250,000 as a commutation for the Sound dues upon her shipping, but the offer was not accepted. Six years later (1854) this country notified Denmark that the convention of 1826 would be broken off the next year, whereupon Denmark proposed a plan for capitalizing the Sound dues, which the United States declined to accept.

Meanwhile England, in 1840, had entered into negotiations with Denmark and obtained some concessions. Finally, a congress representing all the interested nations met at Copenhagen in 1857 and agreed that the various states interested should pay to Denmark \$17,500,000 as a compensation for the permanent surrender of the Sound dues and the maintenance by that country of lights and buoys. This sum was to be divided among the various countries in proportion to the extent of their commerce through the strait; the share of the United States was \$397,011.

266. Norway and Sweden were also in a very prosperous condition during the latter part of the eighteenth century. Sweden as a neutral nation secured much of the carrying trade of the belligerents; she exported large quantities of timber, iron, and pitch to England for shipbuilding and machinery, and extended her commerce even to China and the West Indies. She, however, in common with Denmark and Norway, became involved in war with Napoleon from 1806 to 1815; also in one with Russia, which cost her Finland. These wars greatly depressed Scandinavian trade and industry; British trade and subsidies alone saved them from financial ruin. At the close of the continental war, Swedish Pomerania was taken away from, and Norway added to, Sweden. Although the Norwegians had been badly governed by Denmark, they did not desire to be united to Sweden, but the constitution that was drawn up for the two countries worked pretty well in practice and proved a source of commercial and industrial prosperity. Under this constitution the two countries lived together with a fair degree of harmony.

After 1815 Sweden was not involved in any European war and she had an opportunity to develop her agriculture, mining, manufactures, and trade. Up to 1840 her

agriculture was quite backward, owing to her poor soil, high latitude, and lack of capital, but gradually much of the land was bought by rich burghers, who applied capital and greatly improved the quality and quantity of agricultural products. By the middle of the century Sweden was able to export considerable wheat and wool and some other agricultural products. Waste lands were reclaimed; roads and canals were built; railroads were begun in 1854; the forests were cultivated and the mines developed; industrial and naval schools were founded. An almost prohibitive tariff was established soon after the continental war and was continued throughout the period we are now studying; reciprocal customs duties between Norway and Sweden were maintained up to 1873. Linen and woolen goods were manufactured in Sweden in large quantities, but chiefly on the domestic plan, rather than in large factories; ships were built both for home use and for foreigners; the wood-smelted iron and steel of Sweden was very superior for cutlery, and much of it was exported to England, North America, the East and West Indies, the Levant, and Australia. Norway was far behind Sweden in agriculture, mining, and manufactures; she was even obliged to import large quantities of butter, wheat, and meat. On the other hand, the fishing, timber, tar, pitch, shipbuilding, and ice industries of Norway were very prosperous. The total foreign trade of Sweden at the end of this period was about \$61,000,000; that of Norway about \$40,000,000. The imports of both countries were somewhat larger than their exports.

267. Italy was left in a deplorable condition at the close of the continental war. Her manufactures had suffered terribly and even her rich agricultural resources were neglected. Genoa's merchant marine and trade had been stolen by the English during the war. Venice had carried

on some trade with England, but she, too, was impoverished by the war, and when, in 1815, she became a possession of Austria she was overshadowed by the neighboring port of Trieste. Most of the other Italian cities were in a similar condition after the continental war, and for some time thereafter their commerce was constantly jeopardized by their proximity to the Barbary pirates. Leghorn was at that time the most prosperous city in the peninsula, partly because she was the outlet of Tuscany, the best governed state in Italy.

The reactionary political policy pursued in Italy after the continental war, the misgovernment of the various rulers, and the consequent revolutions were not conducive to a rapid revival, and it was not until about the middle of the century that Italy began to make much progress in industry and commerce. Finally, the success of the struggle for Italian unity under Victor Emmanuel and Garibaldi ushered in a new era of economic, as well as political, prosperity. Large quantities of raw silk, cotton, wool, rice, flax, olives, oils, and wines were produced, much of which was exported. The rich resources of Naples and Sicily were developed. In 1864 nearly five thousand vessels were engaged in the trade of Naples, and two years later the shipping of Sicily required nine thousand vessels. The agriculture of Tuscany and Lombardy was still more advanced than that of the Two Sicilies. Genoa profited greatly by the "cotton crisis," she being the chief outlet for the cotton grown in Italy and France; in 1862 her cotton trade amounted to over \$80,000,000. The total foreign trade of Italy at the close of this period amounted to about \$350,000,000, of which nearly \$40,000,000 represented a transit trade. The imports for home consumption were considerably greater than the exports of home produce. The period therefore closed upon a happily united Italy

rapidly making ready to take again a leading position in the industrial and commercial world. The unification of the peninsula, the opening of the Suez Canal, the piercing of the Alps by great tunnels, and other favorable circumstances occurring about that time pointed the way to a brilliant future of industrial and commercial prosperity.

268. Spain also underwent a terrible crisis during the continental war. Almost all the good accomplished in the reign of Charles III (1759–1788) perished under the bad administration of Charles IV (1788–1808) and during the war against Napoleon. In 1795 Spain withdrew from the Coalition and was promptly punished by the English in the battle of St. Vincent (1797), which crippled the Spanish navy and left the Spanish colonies open to attack. For several years after this battle, England systematically captured Spanish ships, treasure, and colonies. In 1802, by the Treaty of Amiens, England restored the Spanish colonies, but in 1805 Nelson annihilated the naval power of Spain, as well as that of France, in the great battle of Trafalgar. When Napoleon invaded Spain in 1807, however, England upheld her independence and continued to do so until the French were driven back across the Pyrenees; but England's policy in defending Spain was to preserve her feebleness and thus take possession of her colonial commerce. Even while Spain, with England's aid, was driving back the French army of invasion, Mexico was moving towards independence, and the movement thus begun by Mexico in 1808 did not cease until all of the vast colonial domain of Spain in the New World, except Cuba and Porto Rico, was freed from her misrule and absurd colonial policy. The independence of the Spanish colonies, coming as it did about the same time as the detachment of Brazil from Portugal, was one of the most important commercial facts of the nineteenth century, for in this way a new world

was again thrown open to European competition. Nearly all of the European nations entered promptly and eagerly into this competitive struggle, each vying with the others in making commercial treaties with the new American republics, even before their independence was clearly established. England, however, had the advantage in this struggle from the very beginning, for, as we have seen, she had during the continental war and for some time before kept her eye single to the great advantages of trade with Spanish America, and had systematically stolen this trade from the mother country.

Spain, therefore, came through the continental war robbed of an immense colonial domain and with her own industry in a terrible state of decay. Neither did the close of this war bring prosperity to the unfortunate country, for no sooner was it ended than revolutions and civil war broke out which lasted intermittently for many years. For a long time there was a yearly governmental deficit; the rich mineral resources of the country were almost entirely neglected; manufactures continued to decay; agriculture alone furnished a few scant exports. During the reign of Isabella II (1833-1868), however, some industrial and commercial progress was made, in spite of the seven years of civil war at the beginning of her reign and the occasional outbreaks thereafter. Railroads were introduced to some extent by English capitalists, and these aided the development of a few cities, especially Bilbao; the vast mineral wealth of the peninsula was developed, chiefly by French and Belgian capital; considerable improvement was made in agriculture, especially in the production of wool; a few manufactures were developed under a highly protective tariff, chiefly the cotton, iron, and earthenware industries. At the close of the period, the total foreign trade amounted to about \$160,000,000, the imports constituting about sixty-three per cent of it.

269. Portugal during the first half of the continental war experienced a temporary revival of prosperity. The insurrection in Santo Domingo and other circumstances had increased the European demand for Brazilian sugar; the troubles in Spain enabled Portugal to supply the Spanish American colonies with many products previously furnished by Spain; the wine trade with England was in a flourishing condition, on account of the rapid growth of that country. This period of prosperity, however, was suddenly cut short by Napoleon, who, in 1807, declared the Portuguese throne vacant when the regent refused to seize British merchandise. After that, Portugal suffered quite as much as Spain from Napoleon's armies and his efforts to rivet the continental system upon the country. England, to be sure, assisted Portugal with arms and subsidies amounting to about \$95,000,000. Thus Portuguese industry was kept sufficiently active to produce some articles for export, but England was no more anxious for a revived and strong Portugal than for a strong Spain. After the continental war, therefore, English aid was withdrawn and Portuguese manufactures and even husbandry declined for want of capital to develop them properly, while England continued to monopolize the shriveled foreign trade of the country, gradually securing all the trade with the Portuguese colonies in Asia and most of that with the African colonies and Brazil. Civil wars distracted the country from 1820 to 1835, and during that period the valuable colony of Brazil was lost. After 1848 agriculture was improved and manufactures were developed with some success; the mineral resources of the country, however, were neglected, and the remaining colonies were not developed. At the close of the Age of Steam the total foreign trade of Portugal was about \$30,000,000, nearly all of which was with England and conducted by English merchants in English vessels.

270. Turkey. With seemingly calm resignation, due to her Mohammedan doctrine of fatality, Turkey, during this period, saw province after province torn away from her once proud empire; yet the "Sick Man" lived on by the sufferance of the rival European powers and was still the possessor of extensive territories both in Europe and Asia. The commerce and industries of the Ottoman empire, however, had dwindled to a mere shadow of their former greatness and were altogether insignificant compared with the vast natural resources of the territories still ruled by the sultan, yet the remnant of the trade once centering in Constantinople and the Bosphorus was still eagerly competed for by several rival nations, and the rich resources of the empire were exploited by all peoples except the Turks themselves. From the time of Francis I, France had taken the lead in the trade with Turkey, in spite of the vigorous competition of the English, Dutch, and Italians; but during the continental war the English and the Greeks had picked up most of the trade with that empire. After that war the English and the Greeks were able to retain most of the trade which they had gained and also to increase it, but other countries gradually entered the lists as competitors. Austria opened up a considerable trade with Turkey, and Germany and Belgium sent thither many of their manufactures, chiefly through the port of Trieste. France also again, obtained important trading privileges in the Ottoman empire: her exchanges with Constantinople, Alexandria, and Salonica increased, and the capture of Algiers tended to make her the protector of the holy places and the oriental Christians; but she was unable to regain her ascendancy in this region, except for a time in Egypt.

After the Crimean War the Danube was opened to the trade of all nations. This fact, the gradual increase of steam navigation on that river, and the digging of the

canal connecting its tributary, the Altmühl, with the Regnitz, a branch of the Main, led to a considerable increase in the trade along that river with Turkey and greatly benefited all the towns lying along the Danube, the Main, and the Rhine. After that war also there was a great increase in the maritime trade of Turkey, chiefly through the ports of Constantinople, Salónica, Smyrna, and Enos, the port of Adrianople which was the great grain market of the empire. The English and Greeks were still the leading traders with Turkey, but the Austrians, Italians, French, and Russians also played an important part in her foreign commerce. By the close of this period the foreign trade of Turkey amounted to about \$135,000,000, the exports constituting about thirty-seven per cent of it.

271. Greece. What the Americans and Swedes, as neutral traders and blockade runners, did in the north of Europe during the great continental war, the Greeks did in the south. With their light, swift vessels they were well equipped to act alternately as merchants and pirates, and well did they master both these arts during the long period of the Napoleonic wars. Much of the commerce which France had previously carried on with the Ottoman empire was picked up by the enterprising Greek merchants, and many of the French commercial establishments in the eastern Mediterranean and the Orient which perished in the wake of Napoleon's Egyptian expedition, were promptly and shrewdly turned into valuable Greek colonies. By the close of the continental war the map of the Greek colonies in the eastern Mediterranean strangely resembled that of the fifth century B.C.; nearly all the coasts and islands of this region were lined with thriving Greek commercial settlements. During most of the remainder of the period we are now considering, the Greeks continued to ply

their combined trade of merchant and pirate with remarkable success, eagerly profiting by all the rivalries of the French and English, and of the English and Russians in the eastern Mediterranean. By the close of the period a large part of the carrying trade of the Black Sea and eastern Mediterranean was conducted under the Greek flag. The imports and exports of Greece, however, were not at all proportionate to the extensive carrying trade of her merchant fleet, both together amounting to only about \$23,000,000.

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CHAPTER XXVIII

THE UNITED STATES DURING THE AGE OF STEAM

272. Introduction. The industrial and commercial development of the United States may be conveniently divided into the following periods: (I) Period of Industrial and Commercial Planting, 1607–1763; (II) The Struggle for Industrial and Commercial Independence, 1763–1793; (III) Commercial Expansion during the Great Continental War, 1793–1815; (IV) Period of Industrial and Commercial Reorganization, 1815–1866; (V) The New Nation and its Industrial and Commercial Expansion, 1866–1914. The first period has already been partially considered in the chapters devoted to England and her colonies during the seventeenth and eighteenth centuries. We have thus far, however, considered the thirteen English colonies now embraced in the territories of the United States in connection with other colonies, and their economic development has been studied more from the British than the American standpoint, in order to understand better the part played by them in the commercial development of England, and the part played by her in the commercial development of the world. We must now, first of all, briefly reconsider the economic condition of these thirteen colonies at the close of the first period, as a basis for studying the commercial development of the United States as an independent nation. It will be noticed that the beginning of the second period, or the struggle for industrial and commercial independence, coincided approximately with the beginning

of the Age of Steam. James Watt patented his steam engine just a few years after Grenville inaugurated the new policy that crystallized American opposition into revolt, and several of the other important inventions that characterized the early stages of the Age of Steam were made during the great struggle of the thirteen colonies against the mother country. Although it is doubtful whether any connection between these particular events was perceived at the time, there was really a fundamental relation between the English industrial revolution and the American struggle for industrial and commercial independence, both of which occurred during the first part of the Age of Steam. At the other extremity of this great subdivision of commercial history, the close of the Civil War in the United States coincided approximately with the time of the laying of the Atlantic submarine cable. The commercial development of the United States during the Age of Steam will therefore embrace the second, third, and fourth of the periods named above, and these will be considered in the present chapter, while the fifth period will be treated in the chapter devoted to the United States during the Age of Electricity. As already stated, we must first review briefly the economic condition of the thirteen American colonies at the close of the first-named period. This review, as well as our treatment of the other periods, should be accompanied by a very thorough study of some of the works noted in the list of references.



TERRITORIAL GROWTH OF THE UNITED STATES

I. ECONOMIC CONDITION OF THE THIRTEEN COLONIES AT THE BEGINNING OF THE AGE OF STEAM

273. Attitude of England towards the industrial and commercial development of the thirteen colonies. England's colonial policy, like that of other European colonizers, was based upon the erroneous doctrine of "mercantilism." In England this doctrine had been gradually developing as the ideal of national policy ever since the reign of Edward III. According to this doctrine the chief economic aim of any nation should be to increase as much as possible its supply of precious metals. Inasmuch as England had no gold and silver mines she could pile up this supply only by securing an excess of exports over imports, and by buying chiefly raw materials and selling chiefly manufactured goods. Hence it was the almost continuous policy of her rulers and statesmen to encourage first of all, in every possible way, manufactures and foreign trade, and secondarily, agriculture and other industries which helped manufactures and trade by furnishing food stuffs, raw materials, and articles for profitable exportation. On the other hand, all industries, either in England or the colonies, which seemed to interfere with the development of English manufactures and trade were to be repressed. In other words, "mercantilism" applied to the colonies meant that they should simply be feeders of the mother country, and there was a certain foundation for this view in the fact that many lives and much money were lost in the acquisition and protection of the colonies. It seemed only fair, therefore, for the mother country to derive all the profit she could from their exploitation. We can now see quite clearly that this policy was fundamentally defective in several ways, but we should remember that it was born of ignorance rather than

malice, and that England's colonial policy was far less cruel and absurd than that of Spain and some other European countries.

Acting upon this erroneous "mercantilist" theory, England, by her famous Navigation Acts (1651, 1660, 1663) and other statutes, undertook to restrict the colonists to the production and manufacture of such goods as did not interfere with her own landlords and manufacturers, and in order to protect her manufacturers, merchants, and ship-owners she practically prohibited all direct trade with other countries than the British dominions, imposed duties on intercolonial trade, and required all colonial trade to be conducted in English or colonial vessels manned chiefly by English sailors. Some of these restrictions were quite effective, partly because of the laws themselves and partly because of natural conditions favoring their execution. On the other hand, many of the restrictions were quite ineffective, owing to the natural difficulties encountered in enforcing them and the lax system of administration prevailing during most of the colonial period. In general we can distinguish three periods as far as concerns the execution of these laws: (1) the period from 1607 to 1696, when the administration was lax because there was little or no machinery for executing the laws; (2) the period from 1696, when the Board of Trade was organized for controlling the colonies, and admiralty courts were created in the colonies, to 1721, when Robert Walpole became prime minister, — a period characterized by comparatively strict execution of the laws; (3) the period from 1721 to 1763, during which the policy of "salutary neglect," for the sake of encouraging colonial trade, was for the most part adhered to. By the close of the Seven Years' War, therefore, the colonists had become quite thoroughly accustomed to a very lax administration of many of the restrictive measures.

The extent to which England's colonial policy was effective will appear more clearly as we review the industries and commerce of the colonies at the beginning of the Age of Steam.

274. Colonial agriculture. The thirteen colonies, as a whole, were still predominantly agricultural at the beginning of the Age of Steam, farming being most important in the southern colonies and least important in New England outside the Connecticut valley. In the southern colonies large estates cultivated by slave labor prevailed; in New England small farms and a system of intensive culture; in the middle colonies small farms were the rule, but in some places, as for example along the Hudson, there were large estates, which were subdivided and leased to tenants. Primitive methods of farming were still used in all the colonies; there was little or no fertilization of the land; the varieties of animals and vegetable products were little improved by culture and breeding. On the other hand, the land was so rich in many places, especially in the South and parts of the middle colonies, as to yield much more than enough for local use, and consequently furnished a large surplus for exportation. The most important agricultural products of the various colonies were as follows: Georgia, rice and indigo; the Carolinas, tobacco, rice, indigo, considerable corn, and some cotton; Virginia and Maryland, tobacco; the middle colonies, wheat, rye, barley, corn, and flour. All the colonies yielded dairy products for home use, but dairying was especially important on the lowland meadows of New Jersey, where considerable quantities of butter and cheese were produced for the intercolonial trade and for exportation. Cattle raising was carried on quite extensively, not only in New Jersey but in the Carolinas and Virginia, all these colonies exporting large numbers of cattle and horses, chiefly to the

West Indies. In Virginia and the Carolinas this industry became most important on the frontiers. Large numbers of cattle, horses, sheep, and hogs were turned loose in the glades and forests, where they multiplied rapidly; herds numbering over one thousand were quite common on the frontiers of the Carolinas. Considerable quantities of wool, flax, and hemp were produced in various colonies for home use. Many of the vegetables and fruits known in Europe were introduced into the colonies at quite an early date, and continued to be grown wherever the soil and climate proved suitable. The potato, however, remained the most important vegetable, and was grown very extensively, especially in the southern colonies.

275. Although agriculture was the predominant industry, some manufactures were developed in the colonies in spite of English restrictions. As America was colonized during the period when the domestic system of industry prevailed in Europe, that is, when some manufactures were carried on in nearly every home in connection with agricultural pursuits, most of the colonists who came here brought with them a knowledge of various manufacturing processes, and many of them were quite skillful artisans. The hard conditions of pioneer life prevented the early colonists from devoting much time to domestic manufactures further than those that were absolutely necessary, and yet numerous attempts to establish various special manufactures were made in nearly all the colonies at quite an early date, and several of the colonial governments took measures to encourage such industries. In the southern colonies these attempts were never successful because the exceptionally fertile soil there made the growth of tobacco and other agricultural products much more profitable than manufactures. The people of that section, therefore, always imported practically all except the very coarsest kinds of manufactured

goods. In the northern and middle colonies, on the other hand, the knowledge of European methods of manufacturing took deeper root, and some manufactures were developed either in connection with agriculture or in addition thereto. In the case of New England the poor soil was one cause for this industrial development; but the principal cause, both in New England and in the middle colonies, seems to have been the fact that various statutes passed during the latter part of the seventeenth century in the interest of the English landlords prevented those sections from exporting to England their staple agricultural products, such as wheat, rye, barley, oats, peas, beans, salt beef, salt pork, bacon, butter, etc. Inasmuch as they could not sell these products in England, they not only sold them elsewhere, but they naturally tried to make more of their own manufactured articles than they otherwise would have done. Even in these colonies, however, England's policy of restriction was in the main effective. None of the colonial manufacturing industries ever produced much more than enough for home consumption, while most of them never produced enough to satisfy home demands, and many kinds of manufactures were never successfully established in the colonies. The colonial manufactures, therefore, never seriously interfered with English manufactures, either by furnishing articles for export or by preventing the importation of the manufactured goods which England was most anxious to sell in the colonies. How much the general effectiveness of England's policy regarding colonial manufactures was due to the laws which she passed, and how much to the natural conditions prevailing in the colonies, is somewhat difficult to determine accurately; but the latter factor was probably more important than the former in most cases. In New England, where, on the whole, manufactures took deepest root, their extensive development (except in

the case of shipbuilding) was checked by the greater profits to be derived from the fisheries, West Indian commerce, lumbering, shipbuilding, and shipping, by the scarcity of labor and high wages, and in some parts by the greater productivity of labor on new land. In the middle colonies also manufactures were checked by the high wages, scarcity of labor, and the greater profits to be derived from agriculture, cattle raising, dairy farming, lumbering, shipbuilding, fur trading, and West Indian commerce.

276. The textile industries. The manufacture of coarse woolens and linens for family use was conducted on a small scale in many homes throughout all the colonies even during their early history, but towards the close of the seventeenth century and in the first part of the eighteenth the northern and middle colonies began to develop this industry somewhat more extensively. Many of the later immigrants who came to America during that period were skilled in the textile industries, especially the Scotch-Irish, the Huguenots, and the fugitives from the Palatinate. By the beginning of the Age of Steam, therefore, the northern and middle colonies were making a much larger portion of their own woolens and linens than formerly and much more than the southern colonies. Taking the colonies as a whole, they probably made about three fourths of all the cloth used by them. This industry, however, never passed beyond the stage of home manufacture for home consumption, although some home-made cloths were sent to the frontier and from colony to colony, and some attempts were made to manufacture for the export trade. This industry, furthermore, was confined mostly to the making of coarse cloths; the northern and middle colonies, as well as the southern, continued to import large quantities of finer textiles, chiefly from England.

277. Shipbuilding was one of the most important manufacturing industries in the colonies. The large supplies of

lumber made shipbuilding very profitable, and this industry was accordingly begun quite early in New England and some of the middle colonies. The laws of Massachusetts and some other colonies encouraged shipbuilding, and it should not be forgotten that the Navigation Acts also stimulated the industry very greatly by including colonial-built vessels among the English vessels in which all legal trade had to be conducted. Shipbuilding, therefore, became a very important industry in New England and was also developed to a considerable extent in some of the middle colonies. During the years 1772-1775 more than two thousand vessels were built in the colonies, most of them in New England, the next largest number in Pennsylvania, with New York ranking third. At the beginning of the American Revolution three fourths of the vessels trading with New England were owned by men in that section. On the other hand, three fourths of the vessels trading with Virginia and Maryland were owned in England. Many of the vessels owned in England were built in the colonies, and large numbers were also exported to the West Indies.

278. The large supply of beaver and the consequent cheapness of fur favored the growth of a somewhat important beaver-hat industry in New England and New York. In 1731 a parliamentary investigating committee reported that about ten thousand beaver hats were being made annually in those colonies. Consequently, the next year Parliament passed an act prohibiting the exportation of hats and limiting the manufacture thereof, but the act does not seem to have been enforced very strictly. This industry, however, never interfered very seriously with English hat manufacturers, for they still obtained fur from the colonies, and the few hats which the colonial manufacturers exported to Spain, Portugal, and the West Indies did not compete to any great extent with English-made hats.

279. Mining and the hardware industries were also developed to some extent prior to the Revolution. Copper and lead were mined in small quantities in some colonies, but iron was the most important metal mined. This metal was obtained, chiefly from bog iron ore, in all the colonies from Massachusetts to the Carolinas. Not only were pig and bar iron and steel made in various colonies, but certain iron and steel manufactures were gradually developed, as, for example, scythes, rude plows, pitchforks, hoes, horse-shoes, nails, stoves, pots, and other household utensils, wire, iron and steel work for carriages, fishhooks, anchors, iron and steel work for ships, various tools for artisans, guns, and cannon. The northern and middle colonies seem to have manufactured more iron wares, while the southern colonies exported more raw iron. The iron industry, especially the manufacture of iron and steel wares, was developed more in Massachusetts and Pennsylvania than elsewhere; in those colonies smelting and steel furnaces, forges, foundries, rolling mills, slitting mills, nail works, wire works, etc., were quite numerous. The somewhat rapid development of this industry in various colonies led Parliament in 1750 to pass an act prohibiting the further erection of mills for the manufacture of iron and steel wares, but allowing the free importation of bar and pig iron into England from the colonies. This act seems to have been somewhat effective in checking the further growth of iron and steel manufactures in the colonies and in stimulating the exportation of raw iron. In 1745 only 2228 tons of pig iron were sent from the colonies to England; in 1771 they exported over 7525 tons.

280. Various other manufactures were gradually developed in the colonies. The following articles were made in different colonies, mostly for domestic use: leather, harnesses, saddlery, gloves, boots, shoes, leather breeches and

other leather goods, cooper's wares of every kind, wagons, carriages, carts, furniture, cabinet wares, some kinds of rude wooden machinery for manufactures and husbandry, various kinds of paper, various copper and brass wares, ordinary tinwares, soap and candles, bricks, coarse tiles and potteries, cordage, twine, and sailcloth, spirits and malt liquors, salt, some refined sugar, and gunpowder. Some of the above articles were made in sufficient quantities for exportation and the intercolonial trade. During the eighteenth century New England developed the manufacture of rum on quite an extensive scale, this article, as already noted, being used chiefly in the fisheries, the African slave trade, and the West Indian trade. Bricks and tiles were manufactured in considerable quantities in various colonies during the latter part of the colonial period, and were shipped from colony to colony and even to the West Indies. Leather tanning was conducted on quite a large scale in numerous localities, and considerable quantities of leather and leather goods, especially boots and shoes, were made for the intercolonial trade. Cordage and sailcloth were also made in sufficient quantities to be quite important commercially. Printing presses and paper mills were established quite early in several colonies and increased in number and in their output during the colonial period; they were most successful in Boston and Philadelphia, some paper from these cities entering into the intercolonial trade.

281. The lumber industry. Turning now to the production of raw materials and half-manufactured goods in the colonies, let us consider first the lumber industry, which became quite important in many places, especially in New England and some parts of the middle colonies, and to a lesser extent in some parts of the South. At first forests were everywhere recklessly cut down and burned in order

to make clearings for agricultural purposes, but gradually there was also developed a systematic lumbering industry. Sawmills run by wind or water power became quite common throughout the colonies, and large quantities of boards, plank, scantling, timber, masts, spars, staves, headings, hoops, and poles were gotten out both for home use and for exportation. In 1770 the lumber exports from all the colonies were valued at about \$690,000, most of which came from New England; the next largest amount was sent by the middle colonies; the southern colonies exported a little. Considerable quantities of soap ashes were also exported by most of the lumber-exporting colonies. In the early part of the eighteenth century Parliament provided that colonial lumber might enter England free of duty; but in spite of this act most of the lumber exported went to Spain, Portugal, and the West Indies.

282. Naval stores. Parliament made strenuous efforts to develop the manufacture of naval stores in the colonies by granting liberal bounties upon their production. This policy does not seem to have been successful in any of the colonies except the Carolinas. In 1770, 87,561 barrels of tar, 15,793 barrels of pitch, 41,709 barrels of turpentine were exported, most of which came from North Carolina. The bounties on hemp seemed to be almost wholly ineffective.

283. Flour industry. Nearly all of the colonies had local gristmills in large numbers, most of which were run by windmills, and some by water power. The middle colonies, which grew the largest amounts of grain, excelled in the flouring industry and even exported considerable quantities of excellent flour. The gristmills of Philadelphia alone exported nearly three hundred and seventy thousand barrels of flour in 1789. Two years later the colonies as a whole exported nearly six hundred and twenty

thousand barrels of flour, most of which came from the middle colonies.

284. Along the New England coast fishing was the principal occupation of the people. This industry was developed quite early and remained very profitable throughout the colonial period. Large quantities of fish were exported annually both from the New England coast and from the Newfoundland fisheries; the better grades were sent to the Catholic countries of Europe, the poorer grades to the West Indies.

285. Fur trading. The earliest English colonists who came to North America traded in furs with the Indians. In New England and New York fur trading was at first the most important industry and was for some time the chief basis of their foreign commerce. Gradually other industries became relatively more important in both sections, but the fur trade remained very lucrative and important. Eventually the English and Dutch traders pushed up the Hudson and Mohawk valleys to Lake Champlain, the Great Lakes, and the Illinois country, and in another direction across the Alleghanies. As they came into collision with the French traders there was naturally developed an intense rivalry, and it is not too much to say that this rival desire to control the fur trade was one of the principal causes of the French and Indian War.

286. Colonial commerce and shipping. Having formed our estimate of the condition and relative importance of the principal colonial industries and of the general effectiveness of England's restrictions upon manufactures and some other industries, let us now see how far her regulation of colonial commerce and shipping was successful. As might be expected, those provisions in the various restrictive statutes which gave a monopoly of colonial trade to English shipowners were generally well enforced during

the eighteenth century, and quite easily so, for the simple reason that they protected colonial shipowners and sailors, as well as those of England, and stimulated a thriving shipbuilding industry. On the contrary, those provisions in the statutes which sought to prevent the importation of European goods into the colonies, and the exportations of "enumerated" colonial goods to other countries than England, were not so well enforced. There was little illicit trading in the southern colonies, except in their trade with the West Indies during the War of the Spanish Succession and in their exportation of considerable tobacco to other colonies without paying the prescribed duties. There was, however, a large amount of smuggling in the northern and middle colonies, most of which centered in Boston, Philadelphia, New York, and the immediate vicinities of those cities. Quite large quantities of wines, brandies, and other European goods, together with tea, coffee, spices, and other East Indian products, which were obtained from the pirates of Madagascar, were smuggled into the colonies through those cities. New England also had quite an extensive illicit trade in fish with Spain and Portugal. But the largest amount of smuggling was practiced in connection with the West Indian trade. So general was the practice of smuggling that English governors and customs collectors, particularly in New York and New England, frequently connived at various branches of contraband trade. To correctly estimate this practice of smuggling, however, one must remember that England herself at that very time had an army of about forty thousand smugglers plying their arts along her own coasts. It is also important to note that, extensive as was the practice both in England and many of the colonies, few manufactured goods, other than those of English origin, entered the colonies. English merchants rather than manufacturers

suffered from the failure to enforce these restrictions. Likewise, in the main, the colonists sent their "enumerated" goods to England, as the law required.

In spite of all restrictions on colonial industries and trade, their foreign commerce increased quite rapidly during the eighteenth century, especially during the twenty-five years just preceding the Revolution. As already noted in a previous chapter, England's trade with her continental colonies in North America increased from \$3,250,000 in 1698 to \$10,000,000 in 1751, and to \$27,250,000 in 1771. The total foreign trade of the thirteen colonies has been estimated at about \$12,000,000 for the year 1750, and about \$30,000,000 for the year 1771, their exports for the corresponding years being \$3,800,000 and \$11,000,000.

287. There was much barter throughout the colonial period both in the domestic and foreign trade. There was very little metallic money in the colonies, and for a long time such articles as tobacco, beaver, wool, and wampum were commonly used as currency. As Mr Weeden says, "The modern fluidity of buying and selling, the movement through quick prices and ready money, was wanting in large as well as small transactions. Merchandise was present in negotiation, not only as symbolized in a money or currency, but in actual bulk and weight. Men bartered peltry, wampum, or corn in terms of money. Taxes were levied, not in solid coin or its paper representatives, but in farm produce, 'country pay.' . . . One of the pinching wants of the time was not only for quicker capital and more money, but for a better currency of that which they had."¹

288. The means of communication and transportation in the colonies. It is very interesting to note the successive stages in the evolution of means of transit in the American

¹ Economic and Social History of New England, I, 314-315

colonies: first, the paths of wild animals; then the Indian trails, which in the earlier pioneer days were followed by hunters and fur traders, and later by hardy settlers with axes as well as rifles. Along the coast, trails were gradually widened by the ax into roads for wagons, but such roads did not extend far inland until after 1750. As the roads during the colonial period were built under town or county authority they were mostly for purely local needs, and there was little or no thought of connecting the various local roads into a great system of colonial and intercolonial highways. Although there were some good roads between the principal cities along the coast, most of the others, even a short distance away from the coast, were very poor. There were few bridges until after the Revolution, and most rivers had to be forded, while the larger ones were crossed by badly managed ferries. The postal services in the various colonies were still very poor at the outbreak of the Revolution. Most letters and packages were carried by private couriers, and the service was very slow and expensive. One of the earliest and most important acts of the second Continental Congress was the creation of a general post-office department for all the colonies, and the appointment of Dr. Benjamin Franklin as post-master-general. Franklin soon created quite an efficient postal system, and this was one of his greatest services to the American nation.

II. THE STRUGGLE FOR INDUSTRIAL AND COMMERCIAL INDEPENDENCE (1763-1793)

289. The economic basis of the American Revolution. We have the positive testimony of Benjamin Franklin and other reliable witnesses that the feeling in the American colonies towards the mother country at the close of the Seven Years' War was "the best in the world." Although there had been numerous protests and some more tangible demonstrations against various acts of the British government throughout nearly all of the colonial period, they had been fitful and local; nothing had occurred prior to 1763 that would have caused a revolution. Some of the laws restricting colonial industries and trade had been considered rather oppressive in certain parts of the country, but England's right to impose them had been quite generally admitted. At the same time that the legality of these restrictions had thus far been admitted, the colonists had not hesitated to break or evade those portions of the laws which interfered most seriously with their industrial and commercial development, and this had been rendered comparatively easy by England's adherence to Walpole's policy of "salutary neglect" in administering these laws. By 1763, therefore, the colonists had become so accustomed to regard many of the restrictions as dead letters to be systematically evaded that they expected a permanent adherence to this policy of "salutary neglect." Just then, however, England made a radical change in her colonial policy. Her victories over France in the Seven Years' War, together with the first impulses of her industrial revolution, were ushering in a new era of expansion for her industries and commerce. These and other causes made her more than ever anxious to monopolize the trade

of the world and to make her colonies feeders for her own industry and commerce. At the same time the debts incurred during the Seven Years' War, and the need for protecting the American frontier, made her try to raise a revenue from her colonies. Accordingly, Grenville, Townshend, and other ministers made numerous changes in the laws affecting the colonies, the details of which it is not necessary to state here. In general it may be said that the restrictions on colonial trade and industry were retained, some being removed and others added, while the duties on some imports were so revised as to be placed on a revenue basis. At the same time a policy of strict execution of the laws was determined upon. Armed vessels were sent to patrol the American coast; commissioners of customs were appointed to reside in the colonies; writs of assistance were employed to facilitate arrests and insure convictions of smugglers; a vice-admiralty court for all the colonies was established at Halifax. This systematic suppression of the industries and trade of the colonies, which greatly hindered their expansion in many ways, was undoubtedly one of the most important and fundamental causes of the American Revolution.

290. The economic situation in the United States just after the war for independence was truly distressing. The few manufactures which had been founded during the colonial period and extended during the Revolution, as well as the new ones stimulated by the necessities and high prices of the war, were injured seriously by the British manufactures that flooded the country after the war. The development of manufactures was furthermore hindered by the rigid execution of the English laws prohibiting the exportation of tools and machinery. The total manufactured product of the country was worth only about \$20,000,000 in 1789. The close of the war also proved at first a

detriment rather than an advantage to agriculture, which was still by far the most important industry in the young republic; for her farmers could no longer sell their products at fancy prices to the British, French, and American armies. For a time, therefore, American agriculture suffered seriously in common with American manufactures. The fisheries had also been nearly broken up by the war and were not quickly or easily built up again. The commercial situation was no better. The only clause concerning commerce in the treaty of peace (1783) was a provision guaranteeing that the navigation of the Mississippi should be forever free to Great Britain and the United States. Jay had tried to secure from England some reciprocal provision, but had failed. In 1783 Pitt introduced into Parliament a bill providing for free trade between the United States and the British colonies, but he, too, failed and was obliged to resign. Instead of passing Pitt's bill, Parliament reenacted an orthodox navigation act of the seventeenth-century type, which imposed upon Americans practically all the restrictions that had been enforced against foreigners during the colonial period. Among other things, the British West Indies were closed to American traders, and American vessels in other British ports were subjected to heavy tonnage dues. It is to be noted that these restrictions in the British Navigation Act of 1783 were enforced far more stringently than any of the acts of the colonial period had been. Congress also failed to secure commercial treaties with France, Holland, Spain, and Portugal. Prussia and Sweden were the only countries at this time that would make treaties with us guaranteeing reciprocal commercial privileges. Spain was willing to make such a treaty provided we would surrender for twenty-five years the right of navigating the Mississippi, and it is to be lamented that the New England leaders seemed willing to make this

sacrifice for the sake of securing the much coveted privilege of trading with Spain and the Spanish colonies. Fortunately, however, their selfish aims were thwarted in time to prevent the execution of what would have been a grievous mistake in American policy.

What was needed to bring European nations to terms and grant us respectable trading privileges was effective retaliation, but this was prevented by the weakness of Congress under the Articles of Confederation. During the years 1783-1788, New Hampshire, Massachusetts, Rhode Island, Pennsylvania, Maryland, Virginia, North Carolina, South Carolina, and Georgia did levy tonnage dues upon British vessels, but they were ineffective because they were not uniform. These states also imposed discriminating duties upon British goods entering them, but the duties varied from fifty to one hundred per cent, so that their effectiveness was thus neutralized; while some of the neighboring states allowed British goods to enter free of duty, whence they were carried over the border into other states, thus defeating altogether the efforts of the retaliating states. British goods, therefore, continued to flood the country either through the ports that were free or those which imposed the lightest tonnage dues and discriminating duties. As the tonnage duty imposed in the port of New York was only eight cents per ton, while that in the ports of other states varied from sixteen cents to one dollar, her harbor filled rapidly with foreign, especially British, ships during this period, and her commercial activity was greater than that of any other American city. American merchants, however, profited very little by this activity in New York, for her commerce was largely monopolized by foreigners. Consequently, foreign debts were contracted in addition to those already incurred during the Revolution, the country was drained of specie to pay for imports,

and the people suffered from a prolonged attack of "hard times." To make matters worse, most of the states yielded to the popular clamors and issued large quantities of paper money, which, in common with the continental paper money, depreciated rapidly almost to the point of utter worthlessness. Furthermore, the "repudiation fever" raged with full vigor. In order to appease the numerous debtor class certain state legislatures passed "stay laws," which delayed the collection of debts. "Tender laws" were also enacted, permitting debtors to offer goods at certain fixed prices in payment for their debts and requiring creditors to accept such payments. It is quite evident, therefore, that industrial and commercial progress was practically impossible under the Articles of Confederation.

291. The constitution adopted by the Federal Convention of 1787 was largely an outgrowth of the industrial and commercial needs of the country. One of the chief defects of the Articles of Confederation was the fact that they did not give Congress any effective control over either foreign or domestic commerce. This defect was gradually perceived quite clearly by the leading merchants, manufacturers, and financiers, and was their chief motive in trying to secure another constitution. This is shown very plainly in all stages of the evolution of the national government during that period. The Alexandria Convention (1785) was called to settle the disputes between Maryland and Virginia over the navigation of the Potomac and the Chesapeake. The Annapolis Convention (1786) was called to consider the advisability of making uniform commercial regulations for all the states. The Federal Convention (1787) was called for the purpose of making a general revision of the Articles of Confederation, but there is ample evidence showing that the question of regulating commerce was the dominant one and that an amendment of this sort was the main object in

calling the convention. There is no doubt that the new constitution was framed primarily in the interest of the industrial and commercial classes, and was finally ratified largely as a result of their active and intelligent work in its behalf.

292. The new constitution, thus framed and ratified, laid the real foundation for the industrial and commercial independence of the United States. We obtained our political independence in 1783 by the Treaty of Versailles, but we were still dependent upon England both industrially and commercially, and it would have been impossible to outgrow that dependence under the Articles of Confederation. On the other hand, as every one knows, the new constitution gave Congress ample control over both foreign and domestic commerce, and consequently the United States was able to retaliate more effectively against the restrictions imposed by foreign nations upon American commerce and shipping. Not only were several tariff acts passed during the years 1789-1793 for the purpose of raising revenue, retaliating against other countries, and protecting home manufactures, but in 1790 a tonnage act imposed a duty of fifty cents per ton upon foreign vessels entering American ports, a duty of thirty cents per ton upon vessels owned abroad but built in America, while the duty upon vessels owned and built by Americans was only six cents per ton. Later in 1790, a discriminating duty of ten per cent was levied upon all goods not imported in American vessels, and foreign vessels were excluded from the coasting trade. It was further suggested that vessels of countries not having commercial treaties with the United States should be subjected to heavier tonnage dues than those of countries which had such treaties, but the bill incorporating this suggestion was defeated. These retaliatory measures, together with Hamilton's public debt measures, the new national bank, and the increasing confidence in the new

government both at home and abroad, gave a great impulse to American commerce and shipping. It certainly is very apparent, therefore, that the new constitution laid the foundation for the commercial independence of the United States.

Although American manufactures did not at once develop as rapidly as our foreign commerce, the organization of the new government also helped to revive the manufactures which had already been started and which had languished during the period of the Articles of Confederation. We have seen what manufactures had been established in the colonies and that the war for independence had stimulated all the existing manufactures and certain new ones. In order to become industrially independent several notable attempts had been made during the Revolution to smuggle machinery into the colonies and to establish certain industries on a broader basis. Early in 1775, for example, a spinning jenny was brought to Philadelphia, and during the war the manufacturers of that city extended their enterprises by building mills of various kinds. Similar efforts were made during the Revolution by Massachusetts and some other states. The struggle for industrial independence was continued after political independence had been won by the treaty of 1783. In 1786, for example, the legislature of Massachusetts gave a bounty of \$1000 to Robert and Alexander Barr to enable them to construct machines for carding, roping, and spinning wool and cotton, and the next year a textile factory was started at Beverly in that state. Other attempts were also made in Massachusetts, New York, Pennsylvania, Rhode Island, and a few other states. On the whole, however, manufactures languished during the years 1783-1789 on account of the fierce competition of foreign goods, which was not checked under the defective government created by the Articles of

Confederation. The total manufactured product of the country in 1789 was worth only \$20,000,000; but the establishment of a better system of government under the present constitution and the partial checking of foreign competition during the great continental war, led to renewed efforts to extend American manufactures and establish them on a broader and sounder basis. The very next year after the organization of the new government, Samuel Slater, "the father of American manufactures," set up a factory at Pawtucket, Rhode Island, in which he constructed the first complete cotton machinery used in this country. It is interesting to note how Slater was able to reproduce in this country the new machinery then being used in England. For several years he had worked for an English manufacturer of cotton machinery and thus thoroughly fixed in his mind every detail in its construction. Then, accidentally seeing a notice in an American newspaper describing the efforts being made to establish such machinery in America and mentioning the bounties offered for its successful construction there, he promptly decided to emigrate. As he could not even bring models or plans of such machinery on account of the rigid enforcement of the English laws, he simply depended on his accurate remembrance of the details of construction, and successfully accomplished his purpose. His success paved the way for other-similar establishments.

The scope of American manufactures at the close of the period we are considering may be judged from an enumeration given by Alexander Hamilton in his celebrated Report on Manufactures in 1791. The articles enumerated by him were substantially as follows:

1. Leather, shoes, harness, trunks, gloves, glue, etc.
2. Iron bars and sheets, steel, nail rods and nails, implements of husbandry, artificer's tools, household utensils, arms, etc.

3. Ships, cabinet and cooper's wares, wool and cotton cards, machinery for manufactures and agriculture
- 4 Manufactures of flax and hemp, cables, cordage, sailcloth, twine, etc.
- 5 Bricks, coarse tiles, and potter's wares
- 6 Ardent spirits and malt liquors
7. Writing and printing paper, wrapping paper and pasteboard, paper hangings
- 8 Hats of fur and wool
- 9 Refined sugars
- 10 Oils, soaps, tallow candles.
11. Copper and brass wares.
12. Tinwares
- 13 Carriages of all kinds
- 14 Snuff, chewing and smoking tobacco.
15. Starch and hair powder
- 16 Lampblack and painters' colors.
- 17 Gunpowder

After giving this enumeration the report continues:

"Besides manufactories of these articles, which are carried on as regular trades and have attained to a considerable degree of maturity, there is a vast scene of household manufacturing, which contributes more largely to the supply of the community than could be imagined without having made it an object of particular inquiry"

III. COMMERCIAL EXPANSION DURING THE GREAT CONTINENTAL WAR (1793-1815)

The period from 1793 to 1815 witnessed a somewhat rapid growth of agriculture in some sections, the gradual development of some manufactures, and a few important improvements in the means of transportation, but was characterized mainly by a remarkable expansion of our foreign commerce and shipping

293. American agriculture. The most notable progress in agriculture during this period was made in the South and the newly settled Ohio valley. In the South tobacco

culture was becoming less profitable, owing to the exhaustion of the soil by continuous cropping; rice culture had declined during the Revolution from the disorganization of slave labor in the rice districts; growing indigo was very unpopular because preparing it for market was an unwholesome occupation. The South was therefore looking for a new staple crop, and found it in her upland cotton when Whitney's saw gin removed the chief obstacle to its cultivation by furnishing a quick means of separating its short fibers from the seeds. This invention and the duty of 3 cents a pound on raw cotton (1790) gave a tremendous impulse to the new culture, which soon spread into all parts of the South and gradually supplanted all others. The cotton crop increased nearly fortyfold between 1790 and 1800, and continued to increase very rapidly until 1859, when it amounted to 4,309,642 bales (500 lb.); the cotton exports rose from 400 bales in 1790 to 3,535,373 bales in 1860. The rapid settlement of the Ohio valley led to a corresponding increase in the production of grains and some other agricultural products. The extent of the agricultural development in that valley may be roughly estimated from the growth of population. Kentucky's population increased from 73,677 in 1790 to 406,511 in 1810; that of Tennessee, from 35,691 to 261,727. The populations of Ohio and Indiana in 1800 were respectively 45,365 and 5641; in 1810, 230,760 and 24,520. By 1810 Illinois had a population of 12,282. Although the production of grains and other foodstuffs increased quite rapidly during this period, there was only a slight increase in the exportation of wheat. This is easily explained by the larger home demand resulting from the rapid increase of population (3,929,214 in 1790 and 7,239,881 in 1810) and by the tendency to turn wheat into flour before exporting. The flour exports increased from about 720,000 barrels in

1790 to about 1,250,000 barrels in 1807. During the Embargo and the War of 1812 the exportation of grain and flour was almost completely stopped: in 1815, only 17,634 bushels of wheat and 62,739 barrels of flour were exported.

294. American manufactures. Although American capital found much more profitable investments in foreign commerce and shipping than in manufactures during the great continental war, the efforts already made in the direction of industrial independence were gradually continued. Slater's successful experiment at Pawtucket, Rhode Island, led to other similar ventures, and the outbreak of war checked the competition of British goods. By 1803 there were four cotton factories in the country and numerous mills for the manufacture of various other articles. The cotton gin, as already noted, gradually stimulated the growth of cotton in the South, and this naturally helped the cotton manufacturers of the North. The Embargo and the War of 1812 gave a very strong impulse to northern manufactures by keeping out foreign goods and compelling Americans to make goods for themselves or go without. In 1808 there were fifteen cotton factories in the country with eight thousand spindles. By 1811 the number of spindles had increased to eighty thousand, and by 1815 there were five hundred thousand spindles in operation. In 1800 the home manufacturers consumed five hundred bales of cotton; in 1815, ninety thousand bales. By 1815 the capital invested in the cotton and woolen industries was about \$50,000,000. Just at the close of this period, in 1814, Mr. Francis C Lowell paved the way for still further progress in manufacturing by introducing the power loom into his factory at Waltham, Massachusetts.

295. The means of transportation and communication were developed very slowly during this period, but some important improvements were made. Soon after the adoption of the

present constitution turnpike roads began to be built, and early in the nineteenth century these were extended quite rapidly, most of them being constructed by private corporations which charged heavy tolls. Gradually a sentiment was developed in favor of the construction of highways and other important internal improvements by the United States government, but this sentiment did not lead to the execution of many practical enterprises until after the War of 1812. The earliest important turnpike undertaken by the national government was the famous old Cumberland Road. When Ohio was admitted into the Union in 1802, provision was made for the expenditure by the United States government of two per cent of the proceeds of the sales of its lands lying in that state for a turnpike connecting the state with the seaboard. By 1805 about \$12,000 had been thus raised, and surveys were then begun. Finally a route was selected extending from Fort Cumberland on the Potomac to Wheeling. When Indiana, Illinois, and Missouri were admitted, the United States government made similar agreements to that made in the case of Ohio. As the proceeds of some of these lands were not immediately available, the national government advanced money for the road on the strength of future sales of lands, and finally money was appropriated outright for the enterprise. By 1815 about one hundred miles of the road had been completed.

In the meantime the work of constructing canals had begun. The first canal in the United States was the Dismal Swamp Canal, twenty-nine miles long, begun by the state of Virginia in 1787 and opened in 1794. According to the original plan this canal was to be one link in a chain of canals designed primarily so that war vessels could defend the entire coast without undue exposure. There was to be a canal across Cape Cod, one from Newark Bay to the Delaware River, one from the Delaware,

to Chesapeake Bay, one from that bay to the Dismal Swamp, and the Dismal Swamp Canal was to extend to Albemarle and Pamlico sounds. This chain of canals, however, was never completed. Many other canals were projected between 1790 and 1800. In fact, for several years after the adoption of the present constitution there seems to have been quite a fever for speculating in canal and turnpike enterprises. Many companies for such enterprises were formed in most of the states, especially in New York, Massachusetts, and Pennsylvania. Quite a number of canals were projected by various Pennsylvania companies, among which was one from the Schuylkill to the Delaware. The Northern Navigation Company of New York planned a canal from the Hudson to Lake Champlain, while the Western Navigation Company of the same state made several plans for canals connecting the Hudson with the Great Lakes. The Middlesex Canal was projected in Boston; work was begun in 1794, and it was completed in 1803. Few of the numerous other canals which were projected at this time were constructed; it was not until after the War of 1812 that the era of canal building really began in the United States. It is interesting to note that Washington, when a young man, pointed out the desirability of constructing canals connecting the Hudson River with the Great Lakes, and connecting Chesapeake Bay with the Ohio River. Several plans for important canals were also considered in Congress during this period.

Some progress was also made during this period in the navigation of our rivers and the Great Lakes. In 1794 the first regular packet line was established between Pittsburgh and Cincinnati. Six years later the *St. Clair*, a sailing vessel rigged for both ocean and river navigation, went with a load of pork and flour from Marquette to New Orleans and on to Havana, thence taking a load of sugar to

Philadelphia. This voyage was a prophecy of what could be accomplished when steam was applied to navigation. Soon after Fulton's experiments in 1807, steamboats were placed upon various rivers running to the Atlantic seaboard and a little later upon some western rivers. In 1815 a steamboat named the *Enterprise* demonstrated the possibility of going against the current from New Orleans to Pittsburg.

296. Interstate commerce. There was very little overland interstate trade at the beginning of this period, and it developed very slowly thereafter. The older states had not yet developed manufactures sufficiently to ship extensively to the newer states, and the poor means of transportation interfered seriously with such trade even among the coast states, while the Alleghanies stood as an almost impassable barrier between the West and the East. In 1784 the freight charges by pack horse from Philadelphia to Erie were \$249 a ton, and as late as 1821 the freight from Philadelphia to Pittsburg was \$11 per hundredweight. So difficult was the interchange of goods that Ohio farmers were obliged to give twenty bushels of wheat for a pair of boots as late as 1820. On the other hand, a considerable coasting trade had sprung up before the Revolution, and it developed quite rapidly thereafter. In 1789 the tonnage engaged in this kind of trade was already 78,607 tons, and it increased to 477,971 tons by 1812. Even such bulky articles as lumber, bricks, building stone, lime, hay, oats, potatoes, furniture, and carriages were taken by water from New England to New Orleans. In 1776 Gibson and Linn went by boat from Pittsburg to New Orleans and brought back a load of gunpowder, carrying their cargo around the falls of the Ohio. This trip led to the development of a considerable flatboat trade along the Mississippi and Ohio. This trade, however, was conducted under such difficulties as to keep the freight rates quite high. In 1812 the

Louisiana legislature established freight rates averaging \$112 per ton from New Orleans to Louisville, and half that rate for tonnage going down the river. The passenger rate was fixed at \$125.

297. Growth of American foreign commerce and shipping during the great continental war. The foundation for industrial and commercial development having been laid by the adoption of the new constitution and by the important public measures of Hamilton, the United States was ready to avail herself of the first good opportunity for expansion. Such an opportunity was soon afforded by the outbreak of the great continental war, during which occurred the first great expansion of American foreign trade and shipping. During this war the United States was continually picking up the trade which European nations were losing, until she acquired a large part of the carrying trade of the world. During the years 1793-1801 our merchant fleet traded freely and extensively with the East and West Indies, and for several years American merchants and ship-owners filled a very large part of the European demand for colonial products; Russia, Sweden, Germany, and even France and England employed our merchants and vessels as carriers and intermediaries. A typical instance of the rapid growth of colonial trade was the increase of our West Indian sugar shipments from seventy-five thousand pounds in 1791 to thirty-five million pounds in 1796.

Another branch of trade developed during this period deserves special mention. The voyage of the *Empress* to Canton stirred New England merchants to send direct to China for silks and tea, and a brisk trade with that country was soon developed; by 1787 five American ships were on their way to Canton. This trade grew quite rapidly, and during the decade 1821-1830 it averaged nearly \$9,000,000 annually. As our country produced very little that the

Chinese wanted we had to take large quantities of specie with which to buy Chinese tea and silks. During the same period our exports of domestic products to China averaged only \$277,741 annually, while our total imports from that country averaged over \$5,000,000 annually. Consequently, this trade was necessarily a three-cornered one, the specie for buying Chinese goods being chiefly obtained from an intermediate trade with other countries. Furs from the Northwest soon became one of our most important exports to China, and the foundation for this branch of the trade was laid by the voyages of Captain Gray. He left Boston Sept. 30, 1787, rounded the "Horn," secured a cargo of furs on the northwest coast, sold it in Canton, and returned to Boston in August, 1790, with a cargo of tea. Next year he started on another voyage, which resulted in his discovery of the river named after his good ship *Columbia*.

Although European nations were very glad to employ our merchants and shipowners during the great continental war, several of them at various times tried to injure our commerce. England did everything in her power to check the growth of our commerce by countervailing duties and by signing treaties with Russia, Prussia, the German emperor, and Spain which discriminated against American products. France and Spain also passed laws bearing heavily upon our commerce. France in particular, offended at our policy of neutrality, openly insulted our government and envoys, annulled the treaty of 1778 which granted us commercial privileges in her ports, preyed upon our commerce, and during the years 1798-1800 was practically at war with us. While their hands were tied by the war, however, England, France, and other European nations could not prevent American commerce and shipping from making rapid progress. Our total foreign trade increased from \$43,000,000 in 1791 to \$204,000,000 in 1801; our

exports, from \$20,000,000 to \$93,000,000. The tonnage of American vessels engaged in foreign trade rose from 123,893 tons in 1789 to 848,306 tons in 1807. In 1789 only twenty-five per cent of the total tonnage engaged in American foreign trade was represented by our own vessels; in 1795, ninety per cent. Moreover, the United States exported not only her own products, but those of other countries; in 1807 over one half of our exports were reexports. The yearly freight earnings of American vessels at this time were about \$32,000,000, which represented a profit of about ten per cent on the cargoes carried. But this growth of trade was not without interruptions. The Peace of Amiens (1802) checked development for a little while. When the war reopened (1803), however, our trade again increased until 1807, when it reached a total of \$247,000,000: imports, \$138,500,000; exports, \$108,500,000. Then came in rapid succession various English Orders in Council and Napoleon's Berlin and Milan decrees, which caused serious damage to American commerce and shipping. In a few years about sixteen hundred American merchant vessels were captured by British, French, Spanish, Danish, and Neapolitan war vessels and privateers. American property worth \$30,000,000 was condemned as prizes by British admiralty courts, and still more was condemned by French courts. As a means of retaliation President Jefferson tried the Embargo Act (1807), but this only made the situation worse: in one year American exports fell from \$108,500,000 to \$22,400,000 (1808); American ships lost one hundred thousand tons of their foreign freight; the shipbuilding industry was reduced to one third of its size during the previous year. Not only commercial New England lost heavily by the Embargo, but the agricultural states, especially the South, suffered terribly. The surplus wheat could not be exported, and the price fell from two

dollars to seventy-five cents per bushel; the tobacco crop, the mainstay of the South, also remained unsold. So loud and numerous were the complaints that in 1809 the Embargo was replaced by the Non-Intercourse Act, which removed the barriers against trade with all countries except England and France. During the years 1809 and 1810, therefore, trade was resumed with most of the countries formerly visited by our merchants, and the Non-Intercourse Act scarcely impeded our commerce with England and France. An intermediary trade with these countries was carried on through Lisbon, Riga, and a few other ports, and a considerable direct trade with them was conducted under special licenses granted by their governments. The shipping engaged in foreign trade was now more prosperous and extensive than ever before. In 1810 our total foreign trade rose again to \$152,200,000: imports, \$85,400,000; exports, \$66,800,000. In 1811 and 1812, however, trade again fell off, and in the latter year the United States hastily declared war against England under the pressure of the new political leaders from the West and South. This war inflicted serious losses upon American agriculture and commerce. Her surplus wheat flour, tobacco, and other agricultural products remained at home unsold, and even the farmers of the West and South, the very sections that had voted for war, felt the pinch of hard times. New England shipping, shipbuilding, and fisheries suffered very keenly. The imports fell to \$12,000,000 in 1814; the exports to \$6,000,000.

IV. PERIOD OF INDUSTRIAL AND COMMERCIAL REORGANIZATION (1815-1866)

The War of 1812 taught the United States some very salutary lessons and created or strengthened economic forces of the utmost importance. It was followed by a new banking policy, a new tariff policy, extensive improvements in the means of communication and transportation, a very rapid development of agriculture and some other industries, a considerable growth of foreign commerce, and the maximum development of our foreign carrying trade.

298. Industrial development. We had such an abundance of cheap and fertile land, and the foreign demand for our cotton, foodstuffs, and other agricultural products was so great, that most of our people continued to find farming more attractive than manufacturing. Consequently, the South continued to extend her cotton area with the aid of slave labor, to the almost complete exclusion of all other pursuits, while the North and West devoted their rapidly expanding agricultural area chiefly to the production of foodstuffs, all sections finding it profitable to depend upon other countries for a large part of their manufactured goods. Nevertheless, under the stimulus of the Embargo and the War of 1812 some of our manufactures were developed quite rapidly, and some factories were built, particularly in the cotton and wool industries. But most of the factories built at that time, especially the woolen mills, were badly constructed and equipped, and turned out very coarse products.

During the fifteen years following the War of 1812 the power loom was introduced into many factories, and the cotton industry was developed with remarkable rapidity in New England and some of the Middle Atlantic states.

Factory towns like Lowell, Lawrence, Fall River, Holyoke, Cohoes, and Paterson suddenly grew up in these two sections. By 1831 there were about eight hundred cotton factories in the country, containing about twelve hundred and fifty thousand spindles and over thirty-three thousand looms, with an invested capital of nearly \$41,000,000. The industry continued to develop quite steadily until the outbreak of the Civil War. Some idea of this growth may be obtained from the following brief tabular comparison between the years 1840 and 1860:

	1840	1860
Capital invested	\$51,102,000	\$98,585,000
Number of Spindles in Factories	2,284,000	5,236,000
Bales of Raw Cotton consumed	237,000	845,000
Value of Manufactured Product	46,350,000	115,682,000

The woolen industry did not develop as rapidly as the manufacture of cotton goods. Some of the reasons for this are very apparent. There has never been a sufficient domestic supply of raw wool, while there has been a cheap and abundant supply of raw cotton. During a large part of the period we are considering there were quite high duties on raw wool, while the compensating duties on woolens, especially after 1828, were not high enough to offset the high price of wool and other costs of production. Moreover, the woolen mills that were built during the War of 1812, not being so well equipped as the cotton mills, suffered much more from English competition after that war. The woolen industry, therefore, did not make much progress until after 1830. Between 1840 and 1860, however, the capital invested in this industry increased from \$15,765,000 to \$42,849,000, the output from \$20,696,000

to \$73,454,000. During this period our woolen mills supplied most of the home demand for coarser fabrics, but we continued to import most of our finer fabrics. Still less progress was made in the manufacture of other important textiles. We made sewing silk and silk trimmings, but most of our silk manufactures were imported from France and England, while linen manufactures were still in their infancy.

Our iron industry was singularly slow in taking advantage of the great improvements made by British manufacturers (cf. Chap. XXII). Charcoal smelting prevailed here for more than fifty years after England had discarded it. We began to use some coke about 1850, but its use in smelting did not become extensive until the "seventies." As late as 1860 our total output of pig iron was only 821,223 tons. The same year we produced not quite 12,000 tons of steel, most of which was made by the old-fashioned cementation process. Up to that time and even later we imported large quantities of pig and bar iron and steel, and almost all of our steel rails and other railroad material, chiefly from England. On the other hand, we manufactured an increasing amount of various other iron and steel products, and even managed to export considerable quantities of some of them, especially after 1840. At the same time we were gradually increasing our output of many other manufactures: leather, boots, shoes, and other leather goods, hats, various food products, paper, glassware, earthenware, drugs, dyes, cordage, tobacco manufactures, etc. In 1860 the value of our total manufactured output was 19 billions. And this growth was accompanied by the application of various kinds of machinery to industrial processes, to which American inventive genius contributed very largely, especially after 1849. From that time until 1860 the number of patents taken

out annually fell below one thousand only three times, and reached 4778 in 1860. Some of the most important of these American inventions during this period were those relating to the improvement of looms for figured fabrics, to cooking and heating stoves, to musical instruments, sewing machines, firearms, rubber goods, printing presses, boot and shoe machinery.

299. Foreign commerce. Although American merchants and shipowners encountered much sharper competition after the great continental war than before, and although much commercial capital had been diverted to manufactures since the Embargo Act, it seemed for a time as if the Treaty of Ghent would usher in a new era of commercial prosperity, as well as rapid industrial and agricultural development. When our ports were thrown open to trade after the War of 1812, our merchants and those of other countries found ready for shipment the rich harvests of two seasons, which had accumulated during the stoppage of our foreign trade by the war. Short crops abroad increased the demand for American grains, so that they brought better prices in foreign markets. While our farmers were thus ready with a large surplus of agricultural produce for shipment, foreigners were equally glad to dispose of their manufactured goods in our markets, and the development of our resources had greatly increased our own purchasing power. Accordingly, our exports rose from \$6,000,000 in 1814 to \$81,000,000 in 1816, and continued to increase rapidly until 1818, when they reached \$93,000,000. Unfortunately for our manufacturers, our imports increased even more rapidly after the close of the war; they rose to \$147,000,000 in 1816, a point never before reached in our import trade, and about \$100,000,000 of this sum represented foreign manufactured goods. The passage of the tariff act of 1816 and other causes reduced

our imports to \$99,000,000 in 1817, but they rose again to \$121,000,000 the next year. Our total foreign trade in 1818, therefore, amounted to \$214,000,000, a sum not so great as that reached during the three years of exceptional commercial prosperity just preceding Napoleon's continental system, but one which indicated rapid recovery from the effects of the war. These high figures, however, were only temporary. During the next few years our trade declined very rapidly, and our country was afflicted with almost unexampled hard times. The panic of 1819 was one important cause for this commercial decline, and the tariff of 1816 made further inroads upon our import trade. By 1821 both our imports and exports had reached the low level of \$54,000,000. There was a partial recovery after that until 1825, when both our imports and exports rose to \$90,000,000; but the panic of that year proved another serious hindrance to the commercial development of the country, and our foreign trade made no substantial gains for several years thereafter. In fact, our foreign commerce on the whole steadily declined for about twelve years after 1818; our total foreign trade for the decade ending in 1830 amounted to only \$1,600,000,000, about \$100,000,000 less than during the decade ending in 1810. This decline of American commerce was all the more striking because England, France, Holland, Belgium, and Russia were extending their foreign trade very rapidly during the same period. This decline in our commerce is explained not only by the panics of 1819 and 1825, the tariff of 1816, and the consequent growth of our manufactures, but also by the more active competition on the part of foreign merchants and shipowners, the smaller European demand for American breadstuffs, the hostile tariff legislation of European nations, and the difficulties involved in getting products to and from the interior of our country.

The next decade opened a little brighter, and for several years there was a steady increase in our foreign trade. Our exports rose from \$71,000,000 in 1830 to \$124,000,000 in 1836; our imports, from \$62,000,000 to \$177,000,000, both of these figures being higher than we had ever reached before. This improvement was due to the rapid development of our means of communication and transportation, the growth of the West, the increased production of cotton, the larger European demand for American goods, the greater purchasing power of our people, more favorable commercial treaties with various nations, and several other circumstances. The whole country seemed again to be in the full tide of commercial prosperity, when its progress was again checked by the panic of 1837, which inflicted serious injuries upon our trade and industries. By 1838 our foreign trade had fallen off one third from the high-water mark reached in 1836, and there was no great improvement until 1847. Then followed a period of unexampled commercial development lasting until the outbreak of the Civil War, except for the brief interruption during the panic of 1857. Our exports rose to \$333,576,057 in 1860, our imports to \$353,616,119. Our total foreign trade in that year was nearly five times as large as in 1820. Moreover, the general character of our exports had changed very greatly. In 1820 cotton was already a very important export, its value being 43 % of our total exports of domestic products, but in 1860 its percentage had risen to 61, while its absolute increase was nearly ninefold. Our exports of other crude raw materials declined relatively from 17.3 % to 7.7 % of the total, although they nearly trebled in value. Similarly, food exports more than trebled, but their percentage fell from 24.4 to 13. On the other hand, our exports of finished manufactures increased over twelvefold, and their percentage of the total rose from

57 to 11.3, while the percentage of manufactures for further use in manufacturing fell from 9.4 to 4. The changes in the general character of our imports were not so great. Finished manufactures still predominated, but their percentage of the total had decreased from 57 to 49, while the percentage of crude raw materials and manufactures for further use in manufacturing had risen from 11 to 21, and the percentage of foodstuffs (chiefly colonial products) decreased slightly from 31 to 30. The student is advised to study in detail the changes in the leading items in each class of exports and imports, as well as the changes in the geographical distribution of our trade.

300. Shipping and shipbuilding. During the War of 1812 and the period of commercial restriction immediately preceding it, our shipping and shipbuilding interests were injured considerably. Moreover, after this war our ships were again subjected to the competition of foreign ships, especially those of England, whose tonnage increased very rapidly after 1830. Consequently, we lost a part of the carrying trade of European nations. In 1840 our tonnage in foreign trade was no larger than in 1806. Then began a new period of rapid development. Our tonnage in foreign trade rose from 762,838 in 1840 to 2,496,894 in 1861, our coasting tonnage increased 126 %, our Great Lakes tonnage 147 %. During these years, on the average, about 70 % of our foreign trade was carried in our own ships, and we had a large part of the world's carrying trade. Our shipbuilders were unequalled in the manufacture of wooden sailing vessels, and their magnificent "clippers" were superior to all others. Including our coasting and Great Lake vessels, our tonnage in 1861 was about the same as that of the British Empire. On the other hand, the last few years of this period showed some signs of the serious decline that was to come in the next period. The new

tonnage built in our shipyards decreased from 583,450 gross tons in 1855 to 156,602 in 1859. In 1856 about 75 % of our foreign trade was still carried in American bottoms; in 1861, only 65 %.

301. Leading ports. During the Napoleonic wars Boston became our leading port, and retained that position for some time. After the building of the Erie Canal, however, the superior natural advantages of New York as an outlet and inlet for our foreign trade asserted themselves and this city took first place, a position which was soon strengthened by western railroad connections, superior banking facilities, and faster ocean service. In 1860 nearly a third of our total exports cleared from New York, but a large part of them were precious metals. New Orleans, being the natural outlet for the cotton of the lower Mississippi valley, cleared 50 % more of our ordinary merchandise exports than New York, her exports of cotton alone being greater in value than all the merchandise cleared from New York. Cotton also made Mobile, Charleston, and Savannah the next ports in rank after New York in our export trade; Boston and Baltimore had sunk to sixth and seventh places, with Philadelphia, once the leader, still lower on the list (outranked even by San Francisco if gold shipments are counted). On the other hand, New York's import trade in 1860 was nearly double that of all our other ports combined. Boston ranked second; New Orleans, Philadelphia, and Baltimore were next in order. Other southern ports ranking high in clearances had a very small import trade.

Some of the most important factors entering into the development of American industries and commerce during the period between the War of 1812 and the Civil War deserve further consideration. We will first note those factors that were the most direct outgrowths of the War of 1812.

302. The new banking policy following the War of 1812. The first national bank, chartered in 1791 upon the recommendation of Hamilton, expired in 1811, and during the War of 1812 the country had been flooded with about \$50,000,000 of state bank currency. In September, 1814, all the banks in the United States outside of New England were obliged to suspend specie payments. To make the situation worse, the United States Treasury was also in a very bad condition, chiefly because of the falling off of import duties, the revenue in 1814 being only \$11,000,000. For a time, therefore, during and immediately following the war, there was widespread financial disaster which inevitably reacted seriously upon the business interests of the country. The need of a sounder banking system was thus revealed, and accordingly in 1816 a second national bank was chartered, which went into effect Jan. 1, 1817. At the same time the United States government imported \$7,000,000 in specie, with which it was able to resume the payment of the interest on its bonds. The new bank and this importation of specie almost immediately gave an impulse to commerce, manufactures, and agriculture. This banking system remained in operation until it was suddenly and forcibly upset by Jackson's opposition to it. His "removal of the deposits," together with the "wild-cat banking" that followed, was one of the causes of the panic of 1837, which produced such disastrous effects upon the business interests of the country for several years. Finally, in 1840, financial order was in a large measure restored by the establishment of the independent treasury; but the next year this was abolished by the Whigs, and it was not until 1846 that the subtreasury became a government fixture. After 1840 the state banking system, which took the place of the second national bank, gradually improved and became an important factor

in the rapid industrial and commercial growth of the country from that time until the Civil War.

303. The new tariff policy. As soon as peace was concluded in 1815 the country was again flooded with British manufactures, and northern manufacturers soon saw their markets for cotton, woolens, iron, and hardware slipping away from them. As they could not readily return to commercial pursuits on account of the increased competition of other maritime nations, now that the general European war was over, and as they could not transfer the capital invested in manufacturing plants to other enterprises without great sacrifice, they now appealed to Congress for a distinctively protective tariff which would secure the home market for their goods. The immediate result of these appeals was the passage of the tariff act of 1816, which was pushed through by such leaders as Henry Clay and John C. Calhoun, although opposed by Daniel Webster, who represented the shipping interests still dominating Massachusetts, and by John Randolph in behalf of the slaveholders. Even Jefferson now declared that the farmers and manufacturers must stand together. The new tariff imposed a duty of about twenty-five per cent on imported cotton and woolen goods, and provided that no duty on such goods should be less than $6\frac{1}{4}$ cents per yard; it also fixed specific duties on imported iron and salt. The minimum rate of $6\frac{1}{4}$ cents per yard really made the duty on coarse fabrics worn by slaves much more than twenty-five per cent, and the slaveholders of the South consequently considered the tariff of 1816 a great burden. On the other hand, the northern manufacturers, after having once tasted the fruits of protection, did not long remain content even with so favorable a tariff as that of 1816. They soon began to clamor for more and more protection, which they secured in subsequent revisions of the act of

1816 and in the new tariffs of 1824, 1828, and 1832. The general average of duties in the tariff of 1824 was thirty-seven per cent; in the tariff of 1828, about forty-four per cent. In securing these tariffs the manufacturers of New England and the Middle Atlantic states were aided by the representatives of the western states, who were won over by the "home market" argument and by the duties on hemp and wool introduced into these tariffs to please the western farmers. In the tariff of 1828 the duty on hemp was raised from \$35 to \$60 per ton, and the duty on coarse wool was more than doubled; the duties on raw material as a whole almost neutralized the protection afforded the manufacturers. In fact, this tariff, as John Randolph sarcastically remarked, "referred to manufactures of no sort or kind except the manufacture of a President of the United States." In other words, this Tariff of Abominations, as it was called, was the result of a political deal between certain southern leaders, who wanted to insert clauses which would defeat the bill while seeming to favor it, and the northern Jackson men, who favored protection in order to secure the election of Jackson. Contrary to the expectations of these southern leaders, the representatives of the manufacturing states voted for the bill, bad as it was, because they preferred something to nothing, and hoped soon to be able to remove some of the "abominations." Four years later, in the tariff of 1832, Congress practically returned to the rates of 1824 and removed many of the objectionable features of the act of 1828. But this was not enough to suit the leaders of the South, who by this time apparently wanted a complete abrogation of the policy of protection. South Carolina, therefore, feeling that the tariff of 1832 confirmed the national government in the policy of high protection, issued her celebrated Nullification Ordinance, and this

gave rise to Clay's Compromise Tariff (1833), which provided for a gradual scaling down of all duties exceeding 20 % to that level. But in 1842, when this scaling down had run its course, the Whigs, under the leadership of Clay, passed another act restoring the duties to about the 1832 level. This act was decidedly protective; it placed very high duties on certain articles made at home, especially iron (77 %). Four years later, however, the Democrats passed the Walker Tariff, which has erroneously been called a free-trade tariff, for it reduced the 1842 rates only about one sixth. This act remained in force until the tariff of 1857, which reduced the average rate to 19% and extended the free list. But the Civil War suddenly forced the government to increase the revenue duties, and to offset the very heavy internal revenue taxes on home industries by highly protective duties. The Morrill Tariff (1861) restored them to about the 1846 level. But this was only a beginning. Opposition to high duties rapidly disappeared, and hardly a month went by without some increase. The tariff of 1862 raised the average rate to 37 %, the Act of 1864 to 47 %.

304. Improvements in the means of communication and transportation. Another important lesson taught by the War of 1812 was the necessity of developing better means of communication and transportation. One of the chief difficulties in conducting the war had been the lack of good means for transporting troops and army supplies, and the question of good roads and other means of transportation now began to attract greater attention than ever. Furthermore, the sentiment, already started, in favor of national appropriations for roads, canals, and other internal improvements now became much stronger as a result of the expanding influences of the war. Work on the Cumberland Road was continued, and by 1820 the road

was completed to Wheeling; then an extension through Columbus, Indianapolis, and Vandalia to Jefferson City, Missouri, was demanded. Work on this extension was begun at various places and carried on by congressional appropriations; sixty distinct appropriations, amounting to nearly \$7,000,000, were made between 1806 and 1838. After 1840, however, a strong opposition was developed to federal appropriations for such enterprises, and by 1856 Congress had surrendered the various sections of the Cumberland Road to the respective states through which they extended for them to complete. This Cumberland Road is a typical instance of the method of building turn-pikes in various parts of the country during the first half of the nineteenth century. Some short roads were built by private enterprise; others altogether by state aid; others, like the Cumberland Road, by combined aid from the national and state governments. Some idea of the influence of these roads upon the industrial and commercial development of the country may be formed from the following statement made in 1824 concerning the Cumberland Road by Congressman McLean: "Hundreds of families are seen migrating to the West with ease and comfort. Drovers from the West with their cattle of almost every description are seen passing eastward, seeking a market on this side of the mountains. Indeed, this thoroughfare may be compared to a great street through some populous city — travelers on foot, on horseback, and in carriages are seen mingling on its paved surface."

The era of canal building in the United States really began soon after the War of 1812. The most important and ambitious canal enterprise executed during this era was the famous Erie Canal, a plan for which had been suggested by several early statesmen and frequently considered in Congress during its early history. Finally, the

state of New York, under the leadership of De Witt Clinton, took up the work and completed it in 1825. Within a year the freight on grain from Buffalo to Albany fell from \$100 to \$15 per ton, and the rates from the Ohio valley to the seaboard were about one tenth as high as before; thus were the rich agricultural products of that region brought within reach of the world's markets. Other canals were built between Lake Erie and the Ohio River, between Lake Champlain and the Hudson, between the coal regions of northeastern Pennsylvania and the sea-coast, between the Chesapeake and the Delaware River. Some short canals were constructed in various parts of the Appalachians, connecting the watercourses on opposite sides of that range, and for a time crossing the mountains in canal boats was a favorite mode of emigration. Many other canals were projected in various parts of the country; some were carried through, but more were abandoned or fell into the hands of railroads. Most of the canals actually completed played an important part in the early development of industry and commerce before railroads were numerous enough to do the same work better and more quickly. In many cases the canals were not able to compete with railroads for a very long time; some canals, however, notably the Erie, were successful competitors, and continued to exert an important and beneficial influence upon industry and commerce by tending permanently to keep down freight charges. It is to be hoped that many other canals may come to be used more in connection with existing railroads and thus facilitate still further the nation's means of transportation. It would, furthermore, be very desirable to deepen the Erie and some other canals so as to accommodate larger vessels.

While turnpikes, "planks," and canals were being constructed, steam navigation was being developed quite

rapidly on our lakes and rivers and along the coast. In 1818 the *Walk-in-the-Water* started from Black Rock on Lake Erie and eventually reached Mackinac; by 1830 a daily line was running from Buffalo to Detroit, in 1832 the first steamboat visited Chicago. In 1823 Congress passed the first river and harbor bill, and soon entered quite actively into the work of improving western waters and harbors. Especially noteworthy was the fitting of the Mississippi and Ohio for steam navigation. It was not long, therefore, before traffic on the western rivers and the Great Lakes assumed large proportions. Hon. Levi Woodbury, after making a trip down the Mississippi in 1833, said, "At every village we find from ten to twenty flat-bottom boats, which, besides corn in the ear, pork, bacon, flour, whisky, cattle, and fowls, have a great assortment of notions from Cincinnati and elsewhere." Seven years later nearly forty-six hundred vessels passed Cairo, Illinois. By 1856 the steam tonnage of the Mississippi and her tributaries equaled the total steam tonnage of Great Britain.

The next stage in the development of means of transportation was the building of railroads. In 1828 the first spike was driven on the Baltimore and Ohio Railroad; by 1830 fifteen miles of the road were completed; in 1832 it was extended fifty-eight miles farther west to the "Point of Rocks." About the same time railroads were built from Charleston to Columbia, South Carolina, from Boston to Albany, from Albany to Saratoga, from Richmond to Chesterfield, Virginia. By 1835 there were 200 miles of railroad in operation in Pennsylvania, 137 miles in South Carolina, 130 miles in Virginia, and 100 each in Massachusetts, New York, and New Jersey, — total 667 miles. In 1840 the total number of miles in operation in the United States was 2755, practically all of which were still

in the Atlantic states. During the next decade railroads were extended very rapidly in New England, that section having 2600 miles of track in 1850. The road from Boston to Albany was completed during this decade, and Boston was thus directly connected with the West, by way of the Erie Canal. Railroads were also pushed into western New York, Pennsylvania, and Maryland, and roads were also constructed in the Mississippi valley. By 1850 the total railroad mileage of the country had reached 8571 miles, but there was not yet any railroad running from the seaboard through to the West. The most notable progress was made during the decade just preceding the Civil War, the total mileage reaching 28,919 miles in 1860. Railroads were pushed westward from the Middle Atlantic states, and remarkable progress was also made in the South. The railroad expansion, however, was greatest and most rapid in the Mississippi valley. St. Louis and Chicago were connected with the seaboard, and Ohio, Indiana, Illinois, southern Michigan, and Wisconsin were covered with a network of railroads.

While the rapid growth of railroads aided very greatly the industrial and commercial development of the country, it must not be forgotten that it also produced a mania for speculation, especially during the years 1836-1838. "Cities were staked out in the wilderness, town lots without any definite location brought extravagant prices, and companies were exploited for the most chimerical purposes. . . . Paper roads crossed the country in all directions, and 'terminal cities' were laid out in magnificent proportions." State legislatures caught the fever. Illinois, for example, planned 1300 miles of state railroads to cost over \$1,000,000,000; Ohio, Indiana, Michigan, and Missouri took similar steps, and heavy debts were contracted by these and other states for railroads, canals, and

river and harbor improvements, most of which debts were unfortunately repudiated a few years after they were incurred. The United States government also, between 1830 and 1860, granted large tracts of public lands in Illinois, Michigan, Wisconsin, Iowa, Arkansas, Missouri, Alabama, Mississippi, Louisiana, and Florida, to aid similar enterprises, few of which were ever executed.

Ocean steam navigation was also developed quite rapidly during this period, especially the latter part of it. In 1819 the *Savannah*, an American sailing vessel with auxiliary steam power, crossed the Atlantic, and in 1838 (see p. 266), the first regular line of steamers was established between the United States and Europe. Before that, steamboats had been used quite extensively in the coasting trade, and after that time trans-oceanic steam navigation was rapidly developed.

The means of communication were also improved very greatly during this period. By 1860 there were about one hundred and eighty-six thousand miles of postal roads in operation. But the most significant and important improvement in the means of communication was the rapid introduction of the electric telegraph during the latter part of the period. At first, lines were extended up and down the Atlantic coast; then in 1846 a line was extended to Pittsburg. It was some time, however, before long-distance telegraphing was perfected to any extent. As late as 1849 the *New York Tribune*, in reporting President Taylor's inaugural address, was obliged to stop in the middle of a sentence and added in a paragraph the next day, "We shall issue the remainder of this address as soon as received." By 1858 the telegraph was extended from Kansas City to Leavenworth. In the same year an electric cable was laid under the Atlantic, but it was not successful.

305. The old Santa Fé trail. In connection with the development of the means of communication and transportation we should note the unique caravan trade that was extended across the Great American Desert during this period. In 1806 Lieutenant Pike had been directed by General Wilkinson to explore westward to the headwaters of the Arkansas and Red rivers. He went to the Arkansas, ascended to its headwaters, and proceeded thence to the Rio Grande at a point just a little above Santa Fé. Believing that he was within the territory of the United States he built a small fort, but he was soon captured by Spaniards and sent back to the United States by way of Mexico. Pike's expedition soon led to the organization of a caravan trade through the desert, which was quite similar to the caravan trading in Asia and Africa. The first actual trading expedition from the United States to Santa Fé was in 1812, but the traders who went out at that time were imprisoned for nine years. In 1821 Bicknell and certain other traders went from Franklin, Missouri, to Santa Fé, and returned with great profits. Up to that time the goods consumed in New Mexico had come from Vera Cruz, and Bicknell now quickly seized this commercial opportunity. Quite an extensive trade was soon developed. During the years 1829 and 1830 the United States government furnished a military escort, but after that traders organized and protected themselves. Each caravan was composed of about one hundred men and forty or fifty wagons. During the first fifteen years the yearly trade amounted to about \$100,000. All sorts of goods were taken out and buffalo robes, furs, skins, wool, gold, and silver were brought back. St. Louis was the real eastern terminus, but the caravans started at first from Franklin, Missouri, then from Independence, and finally from Kansas City (Westport Landing). The route as finally developed was by steamer from

St. Louis to Kansas City and by wagon thence to Santa Fé, a distance of eight hundred miles. For a short time during the Civil War the starting point was changed to Leavenworth, and after the war was again changed to Kansas City. The last caravan train left Kansas City in 1866, and then the eastern starting point gradually moved westward, following the progress of railroads. About fourteen years later a railroad reached Santa Fé, and thus was ended this unique form of trade that had existed for over a half century.

306. Commercial treaties. As we have not yet specifically considered the commercial treaties negotiated by the United States during the previous periods, let us at this point briefly summarize them in connection with the most important ones negotiated during the period we are now considering.

I. *Commercial treaties with Great Britain (1789-1866).* The Jay Treaty of 1794 was notoriously unsatisfactory to the American people, and it really was not fair or equitable, for the English merchants were guaranteed greater commercial privileges than the Americans. But although the commercial privileges were not really reciprocal, and although the treaty was unsatisfactory in other respects, it was undoubtedly the best that could be secured at the time. The Treaty of Ghent closing the War of 1812 was also unsatisfactory in many ways. It left many important commercial questions to be decided by future negotiations. In 1815 such negotiations were begun, and a treaty in that year opened a small portion of the British West Indian trade to American vessels and contained an important provision designed to secure the abolition of discriminating duties and charges in either country against the vessels and goods of the other. This arrangement was limited to four years, but was renewed for ten years longer in the

treaty of 1818. But England pursued pretty much the same colonial policy after the signing of these treaties as before, and American shipping was almost completely shut out of West Indian ports. Congress, therefore, in order to gain admission to these ports, retaliated by imposing an extra tonnage duty of two dollars per ton upon foreign vessels and an additional duty of ten per cent upon merchandise imported in foreign vessels. Another act of Congress closed the ports of the United States against British vessels coming from any colonial port of Great Britain which was closed to American vessels. Congress also prohibited the importation of West Indian products by way of Nova Scotia and Canada. These laws, passed during the years 1817-1820, instead of serving their intended purpose, were undoubtedly largely responsible for the failure of John Quincy Adams to secure concessions from Great Britain. During his administration the British West Indian ports were closed altogether to American vessels. In 1827, however, Canning, the British foreign minister, died and was succeeded by the more conciliatory Lord Aberdeen; so Jackson was more fortunate than Adams, and in 1830 Great Britain agreed to open the West Indian ports to the commerce of the United States. At the same time Congress aided Jackson in securing this concession by removing many restrictions upon British commerce with the United States. The great advantage of this treaty is shown by the fact that our imports from the British West Indies increased from \$168,579 in 1830 to \$1,048,165 in 1840, while our exports to those islands jumped from \$1901 to \$2,965,585 during the same decade. The Reciprocity Treaty with Great Britain, negotiated in 1854, will be considered in the next paragraph.

II. *Commercial treaties with France (1789-1866).* During the earlier years of our history as an independent

nation our relations with France became strained, as we have already seen, and in 1798 the treaty of 1778 was abrogated. Two years later Napoleon restored amicable relations and concluded a treaty of commerce and navigation. Articles VI and XI of this treaty placed the commerce of the two countries upon a basis of reciprocity as far as duties and tonnage dues were concerned. Our commercial relations with France, however, again became strained when Napoleon issued his Berlin and Milan decrees, although Napoleon did not want war with the United States, but rather desired to force this country into war with Great Britain. A new treaty in 1822 placed the shipping interests of the two countries upon a common basis, and the treaty of 1831 only slightly modified that of 1822. These treaties remained the basis of our commercial relations with France until 1892.

III. *Commercial treaties with Spain (1789-1866).* Spain until quite recently adhered to her policy of excluding the products of other countries from her ports and those of her colonies, when not carried in Spanish vessels. A limited commerce had developed between Spain and the American colonies long before they won their independence, although it was largely of a contraband character. After the American Revolution the United States developed a more extensive trade with Spain, but it was seriously hindered by the highly protective duties imposed by the latter country. None of our early treaties with Spain (1795, 1819, or 1834) established rules for commercial intercourse between the two countries. The American merchants were very anxious in the early history of our country to gain admission to the ports of Cuba and Porto Rico, but it was not until 1809 that Spain allowed Cuba to trade with foreign countries. After that date the trade between Cuba and the United States developed so rapidly that Spain in 1832 imposed

discriminating duties upon the vessels of the United States trading with Cuban and Porto Rican ports. It has been estimated that under this Spanish law American merchants paid \$2,000,000 extra tonnage dues in the single port of Havana. The United States finally retaliated, and for a time commercial relations were seriously checked. In 1852 Spain allowed American vessels to enter her West Indian ports, but the discriminating port and tonnage duties, which she still maintained (in some cases as high as one hundred per cent), were almost as bad for American shipping as complete exclusion. The United States government vainly continued for many years to urge a policy of commercial reciprocity upon the Spanish government; but it was not until 1884, 1886, and 1887 that a series of agreements removed all discriminating duties, and it was still later before a genuine commercial treaty was negotiated between the two countries.

IV *Commercial treaties with other countries (1789-1866).* The legal basis of our commercial relations with Prussia was quite satisfactory almost from the first. The treaty of 1785 provided reciprocal duties and tonnage dues, and was regarded as a model treaty of its kind. This treaty was renewed in 1799, but expired in 1815. In 1828 a new treaty was made which guaranteed "reciprocal liberty of commerce" and declared that there should be no discriminating duties on the vessels of either country. Similar treaties were signed with Hamburg, Bremen, Lubeck, Sweden and Norway, in 1827; with Austria in 1829; with Russia in 1832; with Portugal in 1840; with Holland in 1839 and 1852; with Belgium in 1845, 1858, and 1875; with Switzerland in 1855; with Italy in 1871. Denmark agreed upon partial reciprocity in 1797, and in 1826 made a treaty which was somewhat more favorable to the United States, but this latter treaty was abrogated by our country

in 1856. The next year, when the question of the Danish Sound dues was settled, the treaty of 1826 again became operative. In 1833 a somewhat favorable commercial treaty was negotiated with Siam. Trade with China was facilitated by the treaties of 1844 and 1858, with Japan in 1854.

307. Commercial relations with Mexico and with Central American and South American states. During the years 1821-1826 the commerce of the United States with these countries increased quite rapidly. In 1821 they furnished only three per cent of the total imports of the United States, and took only four per cent of our exports; by 1826 these percentages rose to thirteen and eighteen respectively. During this period about ninety per cent of our trade with those countries was conducted in American vessels. When the question of sending delegates to the Panama Congress of 1826 was under discussion in Congress, President Adams sent a message to that body recommending the proffer to South American republics of disinterested good will and reciprocity. He also recommended the making of treaties with those countries similar to the Prussian treaty of 1785. As is well known, the delegates from the United States arrived too late to take any part in the Panama Congress, and nothing was done by that body regarding commercial reciprocity. Thus the United States threw away a great opportunity, and as a result the commerce of the South American republics, which might have been largely secured for American merchants, passed into other and unfriendly hands. It was not long, however, before commercial treaties were signed with some of these southern states: Colombia, 1824; Argentine Confederation, 1827; Chile, 1832; Peru, Bolivia, and Venezuela, 1836; Ecuador, 1839. After the Mexican War another series of similar treaties was concluded: New Granada, 1846; Mexico, 1848; Guatemala, 1849; San Salvador, 1850; Costa

Rica and Peru, 1851. But these treaties simply insured freedom of commerce and navigation without any special privileges. Unfortunately, little was done during this period towards securing more complete commercial reciprocity between these countries and the United States.

308. The beginning of reciprocity. None of the earlier treaties to which we have thus far referred were reciprocity treaties in the modern sense of the term, that is, they did not make any exceptional concessions to the goods or ships of the United States which other nations having treaty relations did not secure. In 1844, however, Mr. Wharton, our minister to Germany, negotiated a treaty with the German Zollverein which was much more like the modern reciprocity treaty. In these negotiations the United States agreed to favor imports from Germany by reduced duties, and Germany agreed to favor American lard, rice, and cotton. This form of treaty being a novelty at the time, the Senate rejected it on the ground that Congress, and not the Executive Department, was the proper body to regulate commerce. Ten years later the Senate took a different view and agreed to the famous Reciprocity Treaty with Great Britain (1854), by which a long list of articles, if grown or produced in either country, were to be admitted into the other free of duty. This treaty led to a rapid increase of trade between Canada and the United States. The imports into the United States from Canada rose from \$6,700,000 in 1851 to \$22,300,000 in 1856; the exports from the United States into Canada increased from \$12,000,000 to \$29,000,000 during the same period. As our imports from Canada increased much more rapidly under this treaty than our exports to Canada, our people concluded that they were the losers, and in 1866 terminated the treaty. Thus after only a very brief trial the policy of commercial reciprocity was dropped for a time, to be resumed later in the next period.

309. The increase of territory and population was undoubtedly one of the principal causes of the rapid development of our industries and commerce during this period. Louisiana had been acquired during the previous period, but it had not been developed to any extent. Between the War of 1812 and the Civil War, Florida (1819), Texas (1845), Oregon (1846), the Mexican Cession (1848), and the Gadsden Purchase (1853) were acquired. Thus the area of the United States was increased from 849,145 square miles in 1789 to 2,933,588 square miles at the outbreak of the Civil War. Furthermore, the development of these territories went hand in hand with their acquisition. Even before we won our independence, as we have seen, Americans had begun to cross the Alleghanies into the Ohio and Mississippi valleys. The tide of emigration rose higher after the American Revolution, and the work of winning the soil from the Indians and the straggling French settlers was seriously begun. The development of turnpikes, canals, river and lake navigation, and later of railroads, greatly aided the growth of the new territories. The extent of the development in these new territories may be estimated from the growth of their population. The total population of the Ohio and Mississippi valleys in 1810 was only 1,078,316. By 1840 the population of Ohio, Indiana, Illinois, Michigan, Wisconsin, Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Missouri, Arkansas, and Iowa was 6,374,972. By 1860 the population of the same states had reached 13,948,252, while the population of other new states and territories in the West was as follows: Texas, 604,215; California, 379,994; Minnesota, 172,023; Kansas, 107,206; Oregon, 52,465; Colorado, 34,277; Nebraska, 28,841; Nevada, 6857. Thus by the close of the period we are considering there had grown up a new nation in the West, with its splendid addition of resources and products to those of the older nation in the

East, and with its many wants which had to be fed by our manufactures and by our foreign and domestic commerce. At the same time the population of the East was also increasing, though not relatively so fast as that of the West. The total population of the country increased from 3,929,214 in 1790 to 7,239,881 in 1810, to 17,069,453 in 1840, and to 31,443,321 in 1860. No wonder that with such an increase of territory and population our industries and commerce developed very rapidly !

310. Foreign wars, revolutions, and famines also played an important part in the industrial and commercial development of this period. They not only created strong demands, which were supplied by American exports, but they helped swell the tide of emigration from Europe to this country. During the years 1790-1820 less than two hundred and fifty thousand immigrants came to this country. On the other hand, there was a steady flow of foreigners in this direction during the years 1820-1860. From 1830 to 1860 there was unparalleled distress and disorder in Europe; revolution after revolution and famine after famine occurred. From all parts of northern and western Europe emigrants came to this country. But it was not until the European disturbances and famines in the "forties" that the flow became a torrent. The famine of 1845 drove the Irish here in crowds; the great scarcity produced by the bad harvests throughout most of Europe in 1847 and 1848 extended this tendency to the continent; the revolutions of 1848 and disturbances at other times accelerated the tendency. The discovery of gold in California, the prospect of making fortunes rapidly in this country, the perfect religious toleration prevailing here, the benefits of free institutions, the peace and tranquillity of this country, the absolute liberty and political equality which every citizen enjoyed here, the similarity of the American climate to

that of Europe, — all these were magnets which supplemented the forces driving people away from the Old World. As a result of these combined forces the United States was enriched by about 2,400,000 immigrants during the years 1820–1850, and by about 2,500,000 during the single decade 1850–1860. The great majority of these immigrants became farmers, and helped to an enormous extent to develop the agricultural resources of the country. The increased agricultural production furnished the principal contingent of the exports which this country was able to hurl into Europe. At the same time this army of immigrants swelled the demand in this country for manufactured goods, and thus furnished not only a larger home market for our increasing manufactures, but also a market for foreign manufactures. Consequently, American manufactures were expanded, and exchanges between Europe and America were multiplied by every fresh exodus from the Old World. Furthermore, these hosts of immigrants furnished no small amount of profit to the various maritime and railroad transportation companies that brought them here.

311. The discovery of gold in California. Every one knows how rapidly the news of this discovery spread to almost every part of the world, and produced everywhere a contagious desire for migrating to this new eldorado. Americans and Mexicans went from southern California and Mexico, almost depopulating San José and Monterey; soldiers and cooks deserted from the California forts; thousands of Chinese were brought over from the Sandwich Islands, twenty-seven vessels leaving Honolulu within four months of the first news of the discovery; Americans quickly crowded down from Oregon, and soon from all the states and territories of the Union; there was hardly any country in the Old World that was not “afflicted” with

the "California fever." By the end of 1848 there were six thousand men in the gold fields; one year later over seventy-seven thousand had arrived by the various land and sea routes. "No such exodus had taken place within recorded history." From the industrial and commercial standpoint this great discovery is chiefly significant because (1) it led to the rapid settlement of a new nation in the Far West, which soon developed sufficient wants to prove an important feeder for commerce and an important outlet for agricultural and manufactured products; (2) it proved a magnet which, directly and indirectly, drew many thousands of immigrants to other parts of this country, thus producing additional wants to be fed by our foreign and domestic trade; (3) it was a powerful factor in the creation of the first transcontinental railroad; (4) it quickened commerce and industry by providing an ample supply of specie, thus raising the general level of prices; (5) it increased very rapidly the wealth and purchasing power of the American people; (6) it furnished a very lucrative article for our export trade; (7) it aided very greatly the various transportation companies by furnishing them passengers.

312. The panics of 1837 and 1857. In tracing the commercial development of the country from 1815 to 1860 we have already alluded to several commercial and financial panics, the most important of which occurred in 1837 and 1857. Both of these panics were preceded by a period of exceptional prosperity, and the speculative trading carried on during those periods was one of the most important causes of the crash and hard times that followed. In the case of the panic of 1837 there had been an extensive speculation in western lands, which took volumes of paper currency to the West; in 1837 this currency was thrown back upon the East for redemption, where there was

already an excess of this kind of money. At the same time our imports increased from \$62,000,000 in 1830 to \$177,000,000 in 1836, much faster than our exports, and considerable amounts of specie had been sent abroad to meet balances. Furthermore, the modification of the tariff of 1833, and the change of the place of deposit of the funds of the national government in the same year, had brought about much business embarrassment. This embarrassment was greatly increased by the specie circular of July 11, 1836, directing land agents to take nothing but specie in payment for public lands. The act providing for a distribution of the surplus in the treasury also helped bring on a panic by stimulating the already excessive speculative tendencies of the people. It was only natural, therefore, that the country should suffer a serious financial and commercial reaction, from which it did not recover for several years. The panic of 1857 was preceded by a longer period of even greater prosperity than in the case of the panic of 1837. The underlying causes were much the same,—too much speculation, too rapid railroad building, too much capital invested in mills and factories, too great an expansion of bank credit followed by a sudden contraction. This panic was precipitated much more suddenly than the previous one. On the morning of Aug. 24, 1857, scarcely any one, even among the most watchful and conservative financiers, had any idea of impending stringency. Consequently, the failure of the Ohio Life Insurance and Trust Company on that date was a complete surprise, and was correspondingly ominous. Soon followed in rapid succession the failures of numerous railroad, insurance, banking, and mercantile companies. In October the New York City banks suspended specie payments, and other banks were glad to follow. Then came a hard winter. About half the furnaces and forges

of the country were closed ; factories and machine shops shut down ; shipbuilding collapsed, and the ocean carrying trade for a time was almost annihilated. Fortunately, however, the country recovered much more quickly than in 1837. Our commerce felt the effects of this panic for scarcely more than a year, and then began to recover quickly ; by 1860 our foreign trade was much greater than ever before.

313. The industrial effects of slavery. Unfortunately, the economic progress during this period was not evenly distributed over the whole country. The South had not felt the many strong impulses that had been throbbing through all the industrial veins of the North ; or perhaps it would be more strictly correct to say that she had felt them, but had been unable to act upon them. As Woodrow Wilson tersely says : " They [the Southerners] planned railways to the Pacific ; they invited the cooperation of the western states in devising means for linking the two sections industrially together ; they hoped to be able to run upon an equality with the other sections of the country in the race for industrial wealth. But in all that they said there was an undertone of disappointment and of apprehension. They wished to take part, but could not, in what was going forward in the rest of the country." ¹ The reason for this industrial helplessness of the South was the baneful institution of slavery. Some writers have maintained that the immediate industrial effects of slavery were advantageous to the South, enabling the early settlers in that section to subjugate the eastern portion of the southern wilderness more rapidly than they could have done without servile negro labor. This view is probably correct, but, on the other hand, there can be no doubt that the ultimate effects of slavery upon southern industry were

¹ Division and Reunion, p. 164.

very injurious. Slave labor was for the most part unprofitable and wasteful, because the slave worked much more slowly, stupidly, and carelessly than the free laborer. This reacted upon the whites themselves, and made them lazy, unenterprising, and scornful of work. Slave labor prevented the South from profiting to any extent from foreign immigration. Slavery evidently limited and checked the natural growth of white population in various ways, as well as the growth by immigration; the population of the South, therefore, increased much more slowly than did that of the North; the total population of the slave states in 1860 was only 12,315,374, of which number 3,953,696 were slaves, while the population of the free states was 19,083,927. But perhaps the most important industrial injury inflicted upon the South by slavery was the fact that it imposed numerous obstacles in the way of developing manufactures and mining in that section. Slavery made the Southerner oblivious to the unprofitable nature of his wasteful system of agriculture and to the exhaustless stores of mineral and forest wealth in his section, its splendid water powers, and its opportunities for developing wealth more rapidly and safely by combining other industries with agriculture. It was not until the scales were removed from his eyes by the terrible Civil War that the Southerner was really prepared for industrial progress.

314. The Civil War came like a thunderclap to American industry and commerce. For a time everything was unhinged, and it seemed as if all economic progress would be stopped. This was wholly true of the South during the war, but later events showed that the war was to be a great industrial blessing to this section, although it necessarily entailed much suffering and loss for a time. In the North, on the other hand, while the war was a great burden, drained the

labor supply, and deranged business and finance, it was soon noticeable, before the war had lasted very long, that it also served as a great stimulus to both agricultural and industrial development. The prices of agricultural and other products suddenly rose very high; the export of grains therefore increased rapidly, and many great manufactures were developed under the combined encouragement of high prices and the new tariffs which the war brought. Nevertheless, in this section also there was great suffering; the burdens of the direct and indirect taxes, of the depreciated paper money, and of the high prices fell chiefly upon those who were least able to bear them. In Europe also much suffering was caused, especially by the stoppage of the American cotton exports. The war cost the United States as a whole about \$10,000,000,000 and left a public debt of over \$3,000,000,000 (counting that of the states and the nation), but the country quickly recovered, and it should never be forgotten that the Civil War, terrible as it was, was the beginning of such an industrial awakening as the world has seldom seen; in many ways it fitted the United States to take her true place among the great industrial and commercial nations.

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PART V—THE AGE OF ELECTRICITY

CHAPTER XXIX

INTRODUCTION

315. Importance of electricity in the new age. We now enter upon the golden age of commerce, an age ushered in by the laying of the great Atlantic submarine cable in 1866, and also marked off from the preceding age by several other epochal events occurring about the same time. In choosing this date, 1866, as the beginning of the new age, we do not wish to give the impression that there are any hard and fast lines drawn in economic any more than in political development, for industrial and commercial progress as well as political institutions are the result of gradual evolution rather than sudden change. Nevertheless, it is plainly recognizable that the commerce and industry of to-day is radically different in many ways from that of fifty years ago, and if we are to study intelligently the chief characteristics of the present age, we can do so more conveniently by drawing some arbitrary line of demarcation between this and the preceding age. We have therefore chosen the laying of the Atlantic cable because we think it marks the contrast between this and the preceding age more clearly than any other single event, and because certain other decisive events occurred almost at the same time, which helped to make the contrast more striking. We have also chosen the title "The

Age of Electricity" for the present period because it has been marked economically by the many and wonderful applications of electricity more than by any other new characteristic. We would not minimize the present importance of steam and coal. This age, like that of steam, has been marked by an ever-increasing use of coal, the world output has increased over sixfold since 1870 (1,364,000,000 tons, 1912). And this increase was accompanied by a further reduction in the amount of coal required to generate one steam horse power per hour (1 to 1.5 lb. in the best modern engines, 3 lb. in 1866, and 10 lb. in Watt's crude engines). Assuming that it would require 20 men (some say more, some less) to create a force equivalent to one steam horse power, the world's coal output in 1912, if all used in engines requiring 1.5 lb. of coal per hour per horse power, would generate as much power as 606,000,000 men working 10 hours each of the 300 working days of the year. But in spite of this increasing importance of steam and coal, electricity is the most important new force in commerce and industry. How modern business would dwindle without telegraphs, cables, telephones, wireless telegraphy, and the many other practical applications of electricity! And electricity is constantly becoming more important by its almost daily application to new industrial processes. It is even beginning to rival steam as a motive power. In connection with water power it is destined to lead many coalless and oilless nations to industrial greatness. Strictly speaking, however, it is more correct to say that steam and electricity have been supplementary forces during the present age. Just as steam formerly caused great industrial revolutions in many countries, so electricity and steam in this age have gone hand in hand in producing gigantic results, of which no one even dreamed fifty years ago.

316. Three other great events occurring about the same time as the laying of the Atlantic cable helped to mark the beginning of the Age of Electricity. The close of the Civil War in the United States at once relieved the European cotton famine and led to a rapid development of our vast resources, which soon placed us among the world's leading industrial and commercial nations. The Franco-Prussian War brought to the front another great competitor for commercial supremacy by creating the German Empire. The completion of the Suez Canal, thanks to Ferdinand Lesseps, also influenced commercial development very greatly. By shortening the route from Europe to the Far East this canal diverted much traffic from the Cape route; Suez traffic increased rapidly (28,000,000 tons, 1912) and is now greater than that via the Cape. But the canal has not diverted as much traffic to southern Europe as was expected. While French capital invested in the canal has received large dividends, it has aided British commerce and shipping far more than that of France. Recently Germany has also profited greatly by the canal. Although England does not have as large a share of Suez traffic as formerly, it is still very large, while Germany and other northern European nations have most of the rest. The Suez Canal also accelerated the change from sailing to steam vessels, as the latter are practically necessary in navigating the Red Sea.

317. The development of means of communication and transportation has been much more rapid during the Age of Electricity than ever before. The world's postal routes have been greatly extended (4,705,000 miles, 1912) and improved in many ways. Its telegraph mileage rose from 281,000 miles in 1870 to 1,401,000 in 1912; its cable mileage, from 15,000 to 320,000. This period has also witnessed the rise and extensive development of telephones

(both local and long-distance), of wireless telegraphy, of electric railways (urban, suburban, and interurban), and of suburban motor-truck services; even Africa, South America, and other remote regions have shared these developments. The network of steam railroads has been extended on every continent; the world's mileage has increased fivefold since 1870 (683,400 miles, 1912). At the same time railroad service, both freight and passenger, has been made much more effective by steel rails, more powerful and rapid locomotives, larger and better cars and coaches, more frequent trains, better terminal facilities, electrification, and safer signal systems. There has been a similar improvement in water navigation and the construction of vessels; the tonnage, speed, and safety of ocean steamers have steadily increased. The recent use of oil as fuel, and explosive motors of the Diesel type, are likely to produce further important results. The world's total registered merchant tonnage has nearly trebled since 1870 (46,900,000 tons, 1913). Moreover, there has been a constant increase in steam tonnage, which is now over ten times as great as sailing tonnage, while the average carrying power of a steamer is about four times that of a sailing vessel of equal tonnage. Even in number steamers are 3.5 more than sailing vessels (23,897 steamers, 6694 sailing vessels in 1913, omitting vessels of 100 tons or less). Yet sailing vessels, with their lower freight rates, still render valuable service, especially in coasting trade and the "tramp" carriage of bulky products. Some great combinations of transcontinental railroads with ocean steamship lines have been effected, and others are being planned or prosecuted. International postal, telegraphic, and express companies and rates have been established. Many countries have made extensive river and harbor improvements. In some countries rivers and canals have

acquired a new importance by becoming the auxiliaries rather than the rivals of railroads. These improvements have greatly increased the importance not only of towns and cities at the mouths of rivers, but also of many inland cities located on these rivers. Some inland cities have also been connected with the sea by ship canals, notably the Manchester Ship Canal and the North Sea Canal, which have greatly aided the growth of Manchester and Amsterdam. The Soo Canal and its twin in Canadian territory have given a powerful impulse to the traffic on the Great Lakes. Four ship canals of another type have shortened ocean and sea routes. One of these, the Corinth Canal, has thus far been a flat failure. The Kaiser Wilhelm Canal has been more successful, but has not yet secured as much traffic as was predicted. Of vastly greater importance are the Suez Canal and the Panama Canal, which pierced the two narrow isthmuses that had long separated the world's largest oceans and seas, thus shortening by thousands of miles the great ocean trunk routes, and binding together the greatest continents. The Suez Canal will probably retain its commanding position in the world's trade for many years longer, but ultimately the Panama Canal will also produce great changes in routes and carrying trade.

One means of transportation, the ordinary wagon road, has thus far been sadly neglected by most countries outside of western Europe, except in the vicinity of large towns and cities. The average rural road of most countries, even the United States, is still very poor. The immense volume of farm produce marketed, the long distance most of it is carried, the high cost of carrying it over poor roads, and the convenience of travelers make it supremely important that this defect be remedied. It is to be hoped that the various good-roads movements will soon gather sufficient momentum to produce important results.

318. Colonial expansion and emigration from overpopulated to undeveloped regions have been prominent characteristics of this period. Most nations that already had colonies steadily added others, until all the best parts of the world were appropriated. In the "eighties" belated European nations began to join in a mad scramble for what was left, and for "spheres of influence," where political control was impossible. Their newly awakened interest was due chiefly to the increasing need of sources of supply for raw materials and outlets for home products, jealousy of England's extensive colonial commerce, and the power of electricity and steam, which have brought distant continents nearer to Europe. To a certain extent overpopulation was also a cause, but emigration thus far has been chiefly to America, where Europe was barred from political control by the Monroe Doctrine. Recently the United States and Japan, for various reasons, have also been drawn into the general colonizing movement. What advantages will ultimately be derived from all this recent colonization is still doubtful. Some of the new colonies, like many of the older ones, have already made great progress under wise management; but many, both old and new, remain undeveloped, either through neglect or inherent natural difficulties, or both. The future development and destiny of all of them involves many difficult problems and interesting conjectures.

319. Mining, manufactures, and agriculture. Mining has been revolutionized during this period by the discovery of many valuable mineral deposits and the use of safer and far more effective methods; the output of all leading minerals has increased correspondingly. One new mineral, petroleum, hitherto overlooked, has suddenly become very important for many purposes. Its recent use for generating power has led to the prediction that we are now entering the Age of Oil. Manufactures have undergone no less a

metamorphosis as a result of the continued applications of steam and electricity, the minute division of labor, and the greater centralization of industry. It was reserved for this period to realize the ideal of cheap steel, so fundamental to modern progress; hence this has been appropriately called the Age of Steel. This was made possible by the inventions of Bessemer, Siemens-Martin (open-hearth process), and Thomas (basic process). The wonderful development of the chemical industries is another notable achievement of this period. There has not been so much technical progress in agriculture as in mining and manufactures, yet the world's total agricultural output has increased much more rapidly than ever before. This has been due largely to the extensive opening of new lands, but farming methods in some countries have also been greatly improved. New fertilizers have been discovered (guanos, nitrates, phosphates, etc.); better methods of cropping and cultivating have been adopted and fostered by agricultural schools, experiment farms, and the circulation of agricultural publications; all kinds of domestic animals and many plants have been improved by very successful breeding; there has been much greater specialization in farming than formerly; agricultural cooperation has been very effective in many places.

320. The new industrial and commercial organization which originated in the Age of Steam has been developed much further during the present period. The "new commerce" created by this organization is vastly more extensive than that of any previous period, and is conducted by entirely different methods. International division of labor has been developed on a scale never dreamed of before, and this compels all kinds of producers in all countries to seek not only home markets but others in all parts of the world. Moreover, a remarkable solidarity of international

interests has been created. This is shown by the development of international banking, by pooling agreements, by the standardization of weights and measures, and by the international adjustment of many other matters. Persistent efforts have even been made for a single system of time. But this modern organization has at least one grave defect. While it is very efficient in normal times, it is subject to much more frequent interruptions by crises than any previous organization, and these crises now have a much wider effect, often disturbing the whole world.

321. Other important factors in recent economic development. The regular publication of consular reports, crop reports, market reports, financial reports, price lists of many articles, the results of marine observations, and the systematic dissemination of various other kinds of valuable information by geographical societies, commercial museums, chambers of commerce, mercantile trade associations, and other agencies, both public and private, have greatly aided the economic development of the period. Neither should we overlook the great benefits derived by some countries from their excellent agricultural, technical, and commercial colleges and schools of lower grade.

322. The growth of international trade, which began to be appreciable about 1800 and gathered momentum during the remainder of the Age of Steam, has continued at a very rapid pace during the present period. The world's trade just about doubled between 1866 and 1899, and more than doubled again during the next fourteen years, being about \$42,000,000,000 in 1913. The world's per capita trade increased at about the same rate (\$26 in 1913).

323. A rapid rise in the general level of commodity prices is one of the most notable recent tendencies. For example, the rise in the average price of staple raw commodities in the United States (1896-1910) was over 66 %;

that of leading manufactures, over 40 %. And this rise is not confined to the United States, although more marked here than in most countries. There are many causes for the change, but it is generally conceded that the rapid increase in gold production is the chief one. For about fifty years after the discovery of gold in California and Australia the world's annual output was very constant, — a little over \$100,000,000. Then the discovery of new fields, and the perfection of processes for recovering gold from low-content ores, caused a sudden great increase in production. In 1896 it exceeded \$200,000,000, and has since been more than doubled. Another important cause of higher commodity prices, especially in the United States, is the greatly increased cost of distribution, both wholesale and retail.

324. Neo-protectionism. For a time (1860–1880) it looked as if the world would follow England and adopt free trade. But it soon became evident that free competition is impossible without some sort of equality among competitors, and such equality certainly did not exist with England so far in the lead, and cannot exist under the present organization of capital. This and other causes led the world to return to protection. The movement started in the United States during the Civil War, and soon after the Franco-Prussian War it spread to Germany, Austria, Russia, France, Italy, and other countries. Since then most of the leading nations and self-governing colonies have either adopted or retained protective duties, which in most cases have been successively raised rather than lowered. Even England, the apostle of free trade, has recently shown signs of reviving some portions of her protective system. This neo-protectionism, however, has been coupled with numerous and liberal reciprocity treaties between countries most intimately connected by trade.

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CHAPTER XXX

THE UNITED STATES SINCE THE CIVIL WAR

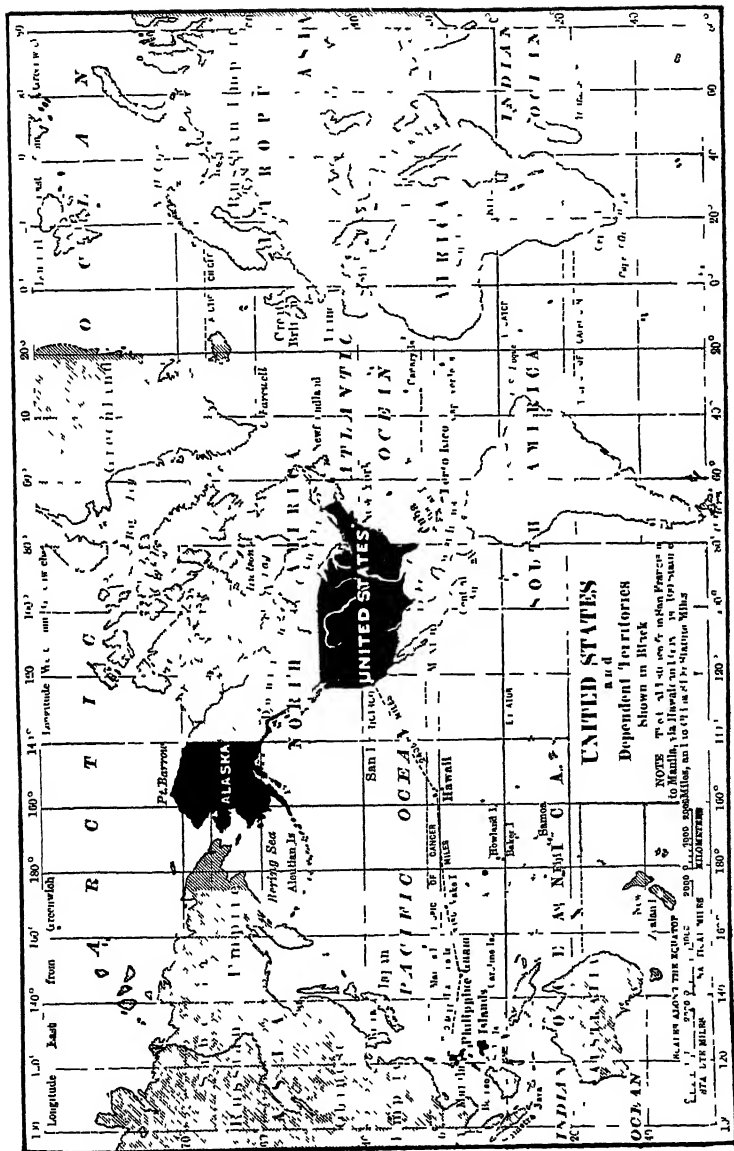
325. The close of the Civil War was the beginning of a new era in the industrial and commercial history of the United States; it brought a new South, a new North, a new Nation. The fever of work and speculation now took hold of all sections and gave a prodigious impulse to enterprises of all kinds, which soon made us the leading agricultural and manufacturing nation, and one of the three leading competitors in international trade. The net result of all this new activity was an increase of our national wealth, from 16 billions in 1860 to nearly 200 billions in 1913. Our foreign trade rose from \$369,000,000 in 1862 (the low mark during the Civil War) to \$4,279,000,000 in 1913; but, vast as this trade has become, it is not quite 1 % of our internal trade, which was estimated at 474 billions in 1912. As a basis for analyzing this extensive commerce and the opportunities for its further expansion, let us briefly outline some of the important factors which have influenced its growth. Of course this outline should be supplemented by a careful further study of each topic.

326. Population has more than trebled since 1860 (98,781,324 in 1914). While we show a good excess of births over deaths, 40 % of this increase was due to immigration. Even during the Civil War decade, immigration was nearly as large as during the previous decade, chiefly because of the Homestead Act and the growth of manufactures under the "war tariffs." It was checked during the depressions following the panics of 1873 and 1893,

and at other times has fluctuated considerably; but since 1880 it has assumed much larger proportions than ever before, reaching high mark (1,285,349) in 1907, with nearly as many in 1914. Much has been done to attract foreigners to this country, and very little to restrict them. The West, in particular, has welcomed them; bureaus have been established to aid them; transportation companies have lowered passenger rates and made systematic efforts to induce foreigners to come here. Whatever may be said about the wisdom of almost unrestricted immigration, the constant influx of foreigners has undoubtedly aided our economic development. Of course our rapid growth of population, both by natural increase and by immigration, has been both cause and effect of our rapid economic development. During this period population has continued to spread out into the less-developed sections, attracted by the rich agricultural, pastoral, forest, and mineral resources awaiting development. The increase of population (1860-1914) in New England was 122 %; in the South Atlantic States, 141 %; in the Middle Atlantic States, 181 %; as compared with 221 % in the South Central States, 245 % in the North Central States, and 1191 % in the Rocky Mountain and Pacific states. Yet even more than by increase of population this period has been characterized by the creation of new means for developing all of our resources, in both older and newer sections. It is interesting to note also that while our total foreign trade has grown more rapidly than our total population, our per capita foreign trade has not quite doubled (\$43.50, 1913). Our per capita foreign trade is still far less than that of other leading countries and some minor countries, but we should bear in mind our very large internal trade. Our per capita trade, both internal and foreign, is about \$4800, which is much larger than that of any other nation.

327. Colonization. In 1867 Alaska was purchased from Russia amid gloomy predictions that it was a worthless acquisition, and for a long time it was called "Seward's folly." Thirty years later, however, the gold discoveries suddenly made this colony commercially important. It has already yielded us many times what we paid for it, and no one can estimate the vast future returns from the full development of its rich mineral, forest, fishery, pastoral, and agricultural resources. In 1898 Hawaii was annexed by joint resolution, and the same year brought us three other colonies (Porto Rico, the Philippines, and Guam) and one protectorate (Cuba), which was later made independent. In 1900 the partition of the Samoan Islands gave us the Tutuila group of islands, and in 1904 the Panama Canal Zone was acquired by treaty from the Republic of Panama. Thus we suddenly found ourselves in possession of a widely separated colonial domain, with an area of 716,529 square miles and a population of over 10,000,000. Although there are still divergent opinions about the wisdom of acquiring and keeping some of these colonies, some of them will undoubtedly be of great future value by serving as outlets for our goods and sources of supply for much-needed raw materials and other products, and by giving us very valuable bases for extending our commerce with other countries.

328. Transportation and means of communication. Railroad building was checked only temporarily by the Civil War, and after 1866 it went on more rapidly and extensively than ever. The first important enterprise of this sort in the present period was the completion of the first transcontinental line (Union and Central Pacific) in 1869. But this was only a prophecy of still greater achievements. This line was soon followed by others, running not only east and west but north and south, until the country was



belted with numerous great through lines and covered with a minute network of shorter lines and branches. Since 1866 the railroad mileage in operation has increased sevenfold (252,000 miles, 1913). Moreover, there have been tremendous improvements in construction, equipment, and operation. Numerous poorly built and equipped short lines, with divergent and expensive managements and even using different track gauges, were gradually merged into large systems under more uniform and efficient, and less expensive, managements. The present standard gauge (4 feet, 8½ inches) was adopted; steel rails and bridges were introduced, so that more powerful locomotives, larger cars, and longer trains could be used, and rates were lowered, especially on long hauls. The first reduction of rates brought such an increase of traffic that further reductions were made. The rate per ton-mile, which in 1860 was 2 cents even on the most bulky products, and much higher on others, steadily fell until it now averages .73 of a cent on all classes of freight, with a still lower average on some of the trunk lines. Passenger rates have also been greatly reduced. Consequently there has been a great increase in traffic; the total ton mileage has been nearly quadrupled since 1890 (over 301 billions, 1913); the passenger mileage has been tripled (34.6 billions, 1913). Over 80 % of the tonnage now consists of mineral, agricultural, and forest products, and bulky manufactures and half manufactures, most of which could not profitably have been carried long distances in 1866. This shows to what an extent the railroads have aided the development of all kinds of resources, even the crudest. Unfortunately there were many rate discriminations, much speculation and "high finance," and other abuses in railroad management, which aroused public hostility and finally led to drastic governmental control; but it is to be hoped that the recent agitation against

the railroads will not go so far as to stop their further development, which is so much needed.

Our inland waterways, in spite of lavish governmental aid, have become relatively much less important; their combined traffic is now far less than that of the railroads. Many canals have been abandoned, and few of those still operated are profitable. Some, notably the Erie, have been deepened for larger boats, but even these cannot compete with the greater speed and certainty of rail transportation. Some of our rivers, especially the Mississippi system, are still important carriers, but the railroads get much the larger share of traffic in their territories. The only hope for most of our rivers and canals is the execution of some systematic plan whereby they may be made supplementary to rail transportation rather than rivals. Ultimately, traffic needs will probably make this advisable. The commerce of the Great Lakes, unlike that of other waterways, has grown steadily and rapidly, especially since the improvement of the Soo Canal and the replacement of wooden sailing vessels by large steel steamers of various kinds. Immense quantities of iron ore, copper, grain, flour, and timber going eastward, and coal and many manufactures going westward, are now carried over these waters at a very low rate. In 1913 the ton mileage of the traffic passing through the St. Mary canals was over 65 billions, and the average cost of carriage was 68 of a mill per ton-mile. The traffic through these canals was nearly 2.5 times as great as that passing through Suez, and much greater than that entering all of our seaports from foreign countries.

Recently there has been a rapid extension of electric railways (urban, suburban, and interurban); mileage has nearly trebled since 1898 (45,004 miles, 1913). In some thickly settled districts, highways have also been greatly

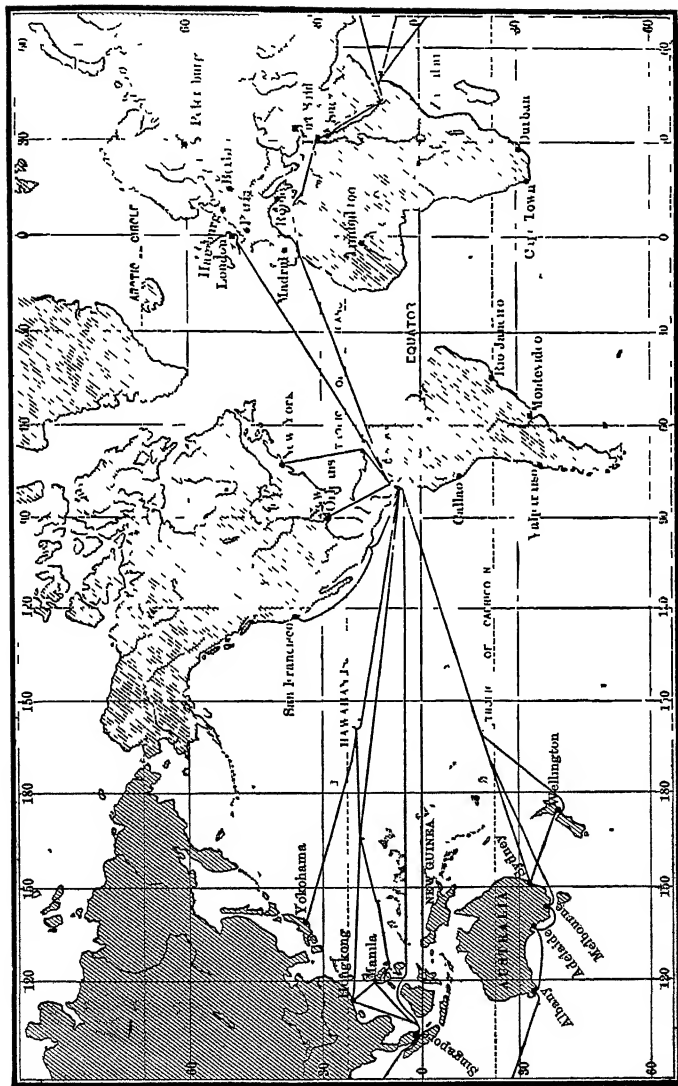
improved, but only about 10 % of our total road mileage has yet been surfaced; in most sections our rural roads are so poor that the wagon haul to and from railroad stations is relatively the larger part of the cost of transportation between producer and consumer. The importance of good roads was mentioned in Chapter XXIX. Possibly federal loans to the states for construction, on the joint basis of area, population, assessed valuation, and road mileage, would be wise, both authorities sharing the expenses of maintenance.

Our postal route mileage has increased 141 % since 1867 (436,293 miles, 1913); the number of post offices, 138 %; the amount of mail matter sent, 434 % since 1886. The Parcels Post Act (1912) provided facilities long desired by many interests but opposed by others. This service seems to offer great advantages; the disadvantages will probably be ultimately overcome. Our telegraph mileage has increased over fivefold since 1867 (Western Union, 237,807 miles, 1913); the number of messages sent, over fifteenfold. Our telephone service has also been developed very rapidly, especially since 1898, in 1912 we had 7,326,748 telephones, and the number of talks was nearly 14 billions. Our recently developed wireless telegraphy has already rendered great service, especially in ocean and lake navigation; no one can safely predict its full effects upon business development.

329. Shipping and shipbuilding. Our merchant marine engaged in foreign trade was nearly destroyed during the Civil War. Confederate cruisers captured 261 northern vessels; the fear of capture and high insurance rates caused many owners to sell their ships to foreigners. Thus our tonnage engaged in foreign trade was reduced to about half its former amount. Our shipbuilding and ocean shipping continued to decline, owing to the change

from sailing vessels to steamers and from wooden to iron ships, the cheapness of iron in England, her greater experience in building the new types of ships, our high duties on materials for iron ships, the failure of Congress to protect our shipping, and the far greater opportunities for investing our capital in other industries, especially in the rapidly developing West. By 1898 our tonnage engaged in foreign trade was less than a third of what it was in 1861, and only 9.3 % of our foreign trade was carried in our own vessels (8.2 %, 1901). By that time nearly all of our foreign carrying trade had also been lost. The low mark in shipbuilding was reached in 1886, when only 95,453 gross tons were launched from our yards. On the other hand, the Great Lakes tonnage has increased sixfold since 1861 (2,939,786 gross tons, 1913), our coasting tonnage about 60 %, and our tonnage in foreign trade has recently risen 46 % above the low mark of 1898. Our total gross tonnage in 1914, including coasting, fishing, and Great Lakes vessels, was 7,928,688, or about 5,300,000 net register, which still places us second among the world's shipping nations. This growth of our total merchant marine has led to increased activity in our shipyards since 1886, culminating in 1908, when 614,216 gross tons were turned out.

330. Panama Canal. During the construction of this waterway, and since its opening in 1914, many exaggerated predictions have been made of wonderful changes to be wrought by it almost instantly. For example, one recognized writer says: "The cutting of the Panama Canal will be the most important geographical event since the discovery of America. . . . It will divert one half of the trade currents of this globe into new channels." Another writer goes even farther and says the canal "will affect the world's commerce more than any other single work or



NEW ROUTES TO BE CREATED BY THE PANAMA CANAL

event in history." Such optimistic prophecies predominate in all that has been written thus far concerning the probable effects of the canal, but mingled with them is an occasional pessimistic prediction that its influence will be very slight. The truth lies somewhere between these two extreme views. On the one hand, it is absurd to expect the world's routes and commerce to be suddenly revolutionized by this new waterway, important as it ultimately will become. The use of the canal by European nations and even by us will depend upon many considerations besides shortening of routes and saving of time, which seem to be overlooked by over-optimistic prophets. For example, the large and fast vessels now plying between Europe and the Far East via the Suez Canal are not likely to give up the large freight, passenger, and mail earnings from the many rich and populous countries lying along this route. Similarly, many other considerations enter into the profitable use of the new canal. On the other hand, the pessimists fail to discriminate between the immediate benefits, which will probably be much smaller than is often predicted, and the much larger ultimate benefits; they seem to forget that the canal was built for all time, not for a few years. Probably the estimate of its influence made by the Isthmian Canal Commission, after long and careful investigation, is about correct, and the student should carefully study their report. .

So far as the United States is concerned, the canal will aid us chiefly in developing the trade of the region east of the Rockies with the west coast of Mexico, Central America, South America, and the Far East, and of our Pacific coast with northern and eastern South America, eastern Mexico, and Central America. It must be remembered that these are the regions which will from now on have the greatest and most rapid developments. They

will need increasing quantities of many industrial and structural materials, especially iron and steel products of many kinds, in the manufacture of which we excel, while they will have an increasing surplus of the vegetable and animal raw materials and foodstuffs which we shall need. Hitherto Europe has had better facilities for delivering goods to these countries, but now our facilities will be better than before with all of them, and with some of them we shall have a distinct advantage over Europe. The canal will also greatly facilitate the trade between our own eastern and western seaboard, but it is hard to estimate just how much of our transcontinental railroad traffic will be diverted to the canal route.

331. Banking, currency, and panics. Unfortunately our country, like many others, during this as well as the preceding period, has been afflicted periodically with severe financial and commercial crises and long periods of business depression following them, notably in 1873, 1893, and 1907. Various reasons for this periodic recurrence of panics have been given by those who have studied them, but most students now agree that their underlying cause, in this and other countries, has always been an over-extension of business and of the credit system, although secondary factors have moderated them or made them more acute. In our country, as in some others, the currency system has been intimately connected with this over-extension of credit. Our rapidly expanding business has naturally created a persistent demand for more money and an effort to force the federal government to supply it. Various quacks have alternately prescribed large doses of paper money and "free silver" as a cure for panics. The pernicious effects of the depreciated "greenbacks" issued during the Civil War did not cure our people of their appetite for fiat money. After part of these had been

retired, Congress (1868), in response to popular demand, prohibited their further retirement, and, as the clamors for cheap paper money grew louder, even passed an act (1874) providing for the issue of more greenbacks than we had during the war. As President Grant vetoed the latter bill, the amount was fixed at the circulation then outstanding. But the agitation for more irredeemable paper money went on, especially in the newer West and South, and led to the formation of the National Greenback Party (1876). This party, however, reached its maximum strength in the state elections of 1878. In the meantime the Republican Party passed an act (1875) providing for the redemption of greenbacks in gold, and for their partial retirement, but in 1878 their amount was again fixed at the circulation then outstanding. On January 1, 1879, resumption of specie payments was begun, but the greenbacks redeemed were reissued and became a permanent part of our currency. The demand for more greenbacks now gave way to the cry of "free silver," in which the silver-mine owners naturally joined. In 1873 Congress had stopped the further coinage of silver dollars, and many honestly believed that this "crime" was the cause of the panic of 1873. Consequently the Bland-Allison Act (1878) provided for the coinage of a certain amount of silver each month, and the Sherman Act (1890) for still more; but the latter act began to crowd gold out of circulation, and was repealed in 1893. This repeal, in turn, was put forth as a cause of the panic of 1893 by the advocates of free silver, but sound money fortunately triumphed in the election of 1896, and finally, March 14, 1900, the gold standard was adopted, and this action was vindicated in the fall elections of that year. In the meantime the national banking system created during the Civil War, chiefly to help float our war bonds, but also to

substitute a safe and uniform bank-note currency for the notes issued by about 1600 banks operating under state laws, was becoming more and more unsatisfactory. While the national banks were generally managed well and honestly, and greatly aided business development, they were unpopular for a long time, and their circulation did not increase as rapidly as expected; in fact, their circulation actually decreased 50 % between 1873 and 1891, largely by the retirement of the bonds on which the notes were based. The act of March 14, 1900, led to a considerable increase in the number of national banks and in their circulation, but this act did little to make our monetary system more elastic. Finally, however, the partial suspension of specie payments by the banks all over the country, during the panic of 1907, forced public attention upon the inelasticity of our banking and currency system. In 1908 the National Monetary Commission was appointed to investigate banking and currency systems in other countries, and recommend legislation. After carefully considering various proposed bills, Congress, in 1913, passed the act creating the present system of Federal Reserve Banks, and it was promptly signed by the President. It is too early to predict the full effects of the new law, but seemingly they will be very great.

332. Tariff policy. The "war tariffs" remained unchanged for twenty years, except a few reductions of purely revenue duties in 1870, a further "horizontal" 10 % reduction in 1872, which was repealed in 1875, and a few minor changes in protective duties. The tariff of 1883 lowered the general level slightly (to 38 %), but the chief reductions were on manufactures least affected by foreign competition. The McKinley Tariff (1890) increased some protective duties, extended them to a number of agricultural products, lowered revenue duties, and put sugar on

the free list, thus raising the general level to 49.5 %. The first material reduction in the war tariffs was the Wilson Act (1893), which put wool, copper, and lumber on the free list, reduced many protective duties, and restored a revenue duty on raw sugar, bringing the general level down to 39.9 %. The Dingley Tariff (1897) raised the general level to 57 %, with some duties as high as 100 % or even 150 %. The Payne-Aldrich Tariff (1909) put hides on the free list, and reduced a number of duties, notably those on iron ore, pig iron, and iron and steel products, bringing the general level down to 40.12 %; but some high duties, especially those on textiles, were retained, and some were raised. This tariff also established for the first time a maximum and minimum tariff, the former on goods from countries making undue discriminations against us, and created free trade between the United States and the Philippines, but limited the amounts of sugar, wrapper and filler tobacco, and cigars to be admitted free of duty. Dissatisfaction with this tariff, especially its failure to reduce the high duties on textiles, led to the Underwood Tariff (1913), which made some very drastic changes. It lowered the average duties on wool manufactures from 56 % to 18.5 %; on cotton manufactures, from 45 5 % to 30.5 %; on metals and metal manufactures (already lowered in 1909), from 34 2 % to 20.2 %; made big reductions in duties on agricultural products, and put sugar on the free list, bringing the general level down to 29.6 %. The champions of this law are loudly singing its praises, but the friends of protection fear its effects. To say the least, it is a long step in a direction opposite to the present general world tendency.

333. The Pan-American movement. The First Pan-American Congress (1889) started a very comprehensive campaign for securing closer relations between our

country and Latin America. Among other things, it recommended an intercontinental railroad, better steamship, telegraphic, and postal communications, an international American bank, a permanent bureau of information, international trade-marks and patents, a uniform code of commercial nomenclature, and reciprocity treaties. One of the most important tangible results of the congress was the creation of a new interest in reciprocity. Although some spasmodic efforts had already been made in this direction, our treaty with Hawaii (1875) was about the only one of this type then in force. But the tariff of 1890 expressly authorized the President to make such treaties, which he soon did, with several Latin-American countries and with Germany, France, and Austria-Hungary. The basis of these treaties was that the United States would receive, free of duty, the sugar, molasses, coffee, and hides of these countries; while they would receive, free of duty or subject to lower duties, our breadstuffs, provisions, lumber, coal, and numerous other products. Although the Dingley Act reaffirmed the principle of reciprocity, it has not been extended farther in actual practice. Congress passed a Canadian reciprocity act in 1911, but it was rejected by the Canadian electors. Another important result of the First Pan-American Congress was the creation of the Bureau of American Republics for promoting commerce and friendly relations with Latin America. In 1907 this bureau was reorganized as the Pan-American Union, which started a more active campaign. Unfortunately, however, it encountered much indifference, ignorance, and prejudice among our exporters, until the interruption of much of our other trade by the Great European War suddenly aroused a new interest in Latin-American trade.

334. Industrial and railroad combinations. The development of the corporate form of business organization, which

began in the previous period, rapidly gathered momentum during and after the Civil War, in industrial as well as transportation enterprises. The industrial expansion following this war led to a steady increase in the size of industrial units, with a more and more pronounced tendency toward large-scale production after the industrial depression following the panic of 1873. At the same time competition became much keener, and often so extreme as to be intolerable. This led first to "pooling agreements" of various kinds, among both railroads and manufacturers, to fix prices (or rates), limit output, and restrict competition in other ways. As these agreements at best were ineffective and only temporary, and were finally declared illegal (1897), a more effective and permanent form of combination was gradually developed after 1880—first the trust and later the holding company. In the late "nineties" this movement became very pronounced. In no other country have such combinations become so common, colossal, powerful, and all-pervading in their influence as in ours. Undoubtedly they have many great advantages in both production and distribution, have created a wonderfully efficient organization, and have greatly aided our industrial and commercial development; but unfortunately they were accompanied with many grave abuses which aroused public hostility. This hostility found expression in many state anti-trust laws, the Federal Anti-Trust Law (1890), the Interstate Commerce Law (1887), various other more recent laws, and in numerous federal and state court decisions based upon these statutes and the common law. Unfortunately, also, the evils of combination were often exaggerated and used for political purposes by ambitious popular leaders, until the public became so inflamed that it made little discrimination between real and imagined abuses, and gave its support to

some methods of governmental control that were of doubtful wisdom. Indeed, the railroads and industrial combinations have recently been pursued so relentlessly that it can be truly said that the persecutors have become the persecuted. Fortunately, however, there are some signs that at last a sane, more tolerant, and less nagging method of governmental regulation is to be followed, and it certainly is to be hoped that these signs may come true, for the good of both the public and the combinations.

335. The growth of labor unions is another prominent characteristic of this period. Many of them have gained enormous strength and have undoubtedly benefited laborers in various ways. But some unions have recently followed the "new unionism" of England too closely, by opposing the introduction of labor-saving machinery and by putting limitations upon output, either by explicit rule or by social pressure, on the erroneous theory that this policy will benefit the laborer by creating a larger demand for labor. Some unions have also been too much inclined to foster hopeless and useless strikes, and have thus injured rather than helped their members. Some strikes of this period have caused an enormous decrease in production, a great loss of wages, and the destruction of much property by riotous strikers and their sympathizers. Many billions of dollars have thus been lost, and trade has been seriously interrupted. Fortunately the resort to violence against strike-breakers and employers, and the destruction of property, have decreased in order to secure popular support. Moreover, the tendency is more and more toward peaceable settlement of disputes by arbitration, especially since the Erdman Act (1898).

336. Other important factors which have influenced our industrial and commercial development during the present period are the financial growth of our large cities, especially

New York and Chicago; the wonderful development of all kinds of insurance; the increased activities of our stock-and-produce exchanges, mercantile agencies, and other credit organizations; the recent growth of scientific accounting, especially cost accounting; technical and commercial education; the various activities of the new Department of Commerce and some other government agencies; and numerous industrial expositions. Unfortunately the limited scope of this chapter forbids even a general summary of the influence of these and other factors in our recent development, the careful study of which is not only important but very interesting.

337. Agriculture has been developed on a prodigious scale during this period. The value of our farm property (in billions) rose from 7.98 in 1860 to 20.4 in 1900, and to nearly 41 in 1910; the value of our annual agricultural output, from 1.96 in 1870 to 4.7 in 1900, and to 9.8 in 1913. Up to 1900 the increased output was due chiefly to the rapid extension of our cultivated area in all parts of the country. The "improved" acreage increased from 163,110,720 acres in 1860 to 414,498,487 in 1900. By this time the supply of good new land at low prices was nearly exhausted, and the rapid extension of our agricultural area came to a halt; the improved area in 1910 was only 15.5 % greater than in 1900. The large increase in the value of the output since 1900 was due chiefly to higher prices for agricultural products and to more intensive and scientific cultivation, which had been gradually developing for some years prior to 1900, but made more progress after that date, stimulated by the various activities of the United States Department of Agriculture, numerous state experiment stations, a great variety of agricultural schools, and the steadily increasing demand for agricultural products of all kinds at rising prices. Future

expansion, likewise, will come chiefly from improved farming methods. Of course large areas will yet be brought into use. New farms will be created by drainage, irrigation, pulling stumps, and applying scientific methods to sandy and gravelly lands; unimproved lands on existing farms will be utilized by the same processes; land now reported as improved will be used more constantly and effectively by eliminating summer fallow and making better use of other land not cropped; many so-called abandoned farms will be made productive. All these lines of development have already begun, and they will be carried much farther; but the greatest future development will come from more intensive cultivation, better farming methods, and better organization of farm work. Although we are much more advanced than any other nation in the use of modern agricultural implements and machinery, and have recently made many improvements in some places and in some kinds of farming, our average methods are still very inefficient; our technical progress in agriculture has been far less than in other industries. Much further improvement must be made in order to keep pace with the rapidly increasing demand for agricultural products. Our output, large as it is, is increasing much more slowly than our population, as is evidenced by rising prices and relatively smaller exports of farm products.

338. Forest industries. The first great development of our lumber industry was in our northeastern states, but their supplies of timber began to be depleted about 1850. Then the forests of the Great Lakes were exploited, and for some time after the Civil War the chief development was there. Railroads were pushed into these virgin forests, modern machinery and methods were introduced into the mills and logging camps, production being greatly stimulated by the enormous demand for lumber in the rapidly

developing prairie states. By 1890, however, this region also reached its maximum production. The diminishing supply there, and in the northeastern states after 1890, would have been a national calamity had it not been for the development by modern methods of the great yellow-pine and other forests of the South, which have yielded a rapidly increasing supply for both home use and export (46.7 % of our total output, 1912). In the meantime the output of our great Pacific forests has also increased very rapidly, especially since 1900 (18.4 % of the total, 1912), which is not only used locally and exported, but shipped eastward in large quantities. Machinery is used even more extensively in these forests than elsewhere. The net result of all this development is a present output of about 40 billion feet, board measure, according to official figures, but much more according to some other seemingly reliable estimates. Unfortunately, for a long time much waste of various kinds accompanied the exploitation of our forests, but this has recently been checked somewhat by the creation of numerous forest reserves and a growing appreciation among lumbermen themselves of the importance of conservation. Perhaps it is also unfortunate that we have exported so much timber and lumber, as our supplies, large as they are, cannot last indefinitely at the present rate of cutting, unless waste can be completely stopped and systematic conservation and reforestation be practiced. Besides lumber, railroad ties, mining and various other kinds of timber, our forests continue to furnish very large quantities of pulp wood, turpentine, rosin, tar, tanning materials, and some other products.

339. Our mining and manufacturing industries have been revolutionized during this period. Up to 1860 our miners were chiefly interested in gold and silver, and were almost oblivious of the richness of our other mineral resources.

We continued to be the largest producer of gold until 1898, when South Africa attained first rank, which position she has retained except during the Boer War. But the discovery of new methods of extracting gold from low-grade ores has enabled us to greatly increase our output since 1898; we still rank far ahead of all other producers except South Africa, our output in 1912 being 20 % of the world's. We also became for a time the leading producer of silver, and our output in 1913 was still 15 % of the world's. But the new development of our other mineral resources has been vastly more important. We have discovered that our coal deposits are probably greater than those of any other whole continent, and our output has risen from 14,000,000 tons in 1860 to 570,000,000 in 1913 (about 40 % of the world's output and 95 % greater than England's). This coal is used in many ways, but chiefly for generating steam for our locomotives and factories. This period has also witnessed the full development of our vast iron-ore deposits in the Lake Superior region, the Ohio valley, and Alabama, and the partial development of those in the Rockies; our ore output rose from 3,000,000 tons in 1870 to 57,000,000 in 1912. The fuller development of our Lake Superior copper mines, and the discovery of many new ones in Montana and Arizona, also made us the leading producer of this metal (563,260 tons, 1912, or 55.7 % of the world's output). Our output of petroleum rose from 84,000 gallons in 1859 to 9.3 billions in 1913. In 1900 Russia produced a little more oil than we did, but we now produce nearly four times as much as she does (cf. Chap. XXXIII). The total value of these and all our other mineral products in 1913 was 2.24 billions, over ten times as much as in 1870.

Our coal and iron gave us one fundamental basis for a new and unprecedented development of manufactures.

The Civil War also marked the beginning of a new activity on the part of our inventors. The number of patents issued by our Patent Office increased from 3329 in 1861 to 13,997 in 1869, and to 37,731 in 1912. These patents completely revolutionized old industries and started many new ones. Our inventors not only improved the methods of making old wares, but even devised unique ways of making entirely new commodities. The development of transportation facilities made it possible to assemble all kinds of raw materials, no matter how bulky, in great manufacturing centers, and to market finished products readily throughout the country and abroad. The rapid natural increase of population, and the steady stream of immigrants, furnished abundant labor. Capital was contributed by investors in all parts of the world, who were eager to share in the profits from developing our rich resources. Great industrial leaders arose, and our industrial organization and management became wonderfully efficient. A large and rapidly expanding home market readily absorbed nearly all that our factories could produce. Protective tariffs also played an important part in our development. By all these means we have become the leading manufacturing nation in the world. The capital invested in our manufactures rose from 1 billion in 1860 to 23 billions in 1913; the value of their output, from 1.9 to 25.3 billions, having considerably more than doubled since 1899. Our present annual output of manufactured goods is greater than that of England and Germany combined, and this great volume of manufacturing has gradually spread out into all parts of the country. Our northeastern states have greatly extended their manufactures and are still far in the lead, but great developments have also been made in the South, Middle West, and even in the Pacific and Rocky Mountain states.

The most remarkable growth was in our iron and steel industries. Our output of pig iron rose from 821,223 tons in 1860 to 31,200,000 in 1913 (41 % of the world's). The increase in steel production was relatively much greater—only 19,643 tons as late as 1867 and 32,800,000 in 1913 (45 % of the world's). Most of this growth has been since 1880. As late as 1879 some German experts returning from our country said that we never could compete with England and Germany in steel making, on account of the long distance between the Lake Superior ores and Pittsburgh. But the distance was soon bridged by a fleet of ore steamers and wonderful loading and unloading facilities, and our methods of manufacturing iron and steel were made superior to those of all other countries by numerous modern improvements. We also took the lead in the manufacture of railroad equipment (steam and electric), various kinds of machinery, agricultural implements, and many other steel products. Our slaughtering and meat-packing plants also lead the world in output, and are marvels of efficiency. This industry naturally had its greatest development in Chicago, Kansas City, Omaha, St. Louis, St. Joseph (Mo), and, more recently, in many smaller cities and towns in the West. Our cotton, wool, silk, and clothing manufactures have also been greatly improved and extended during this period. The same and even more may be said of our flour, boot and shoe, printing and publishing, paper, and furniture industries, not to mention many others.

340. The industrial revolution in the South. After the Civil War the high price of cotton induced an immediate resumption of its culture, to the almost complete exclusion of other crops; the cotton area and the acreage in the former cotton belt were rapidly extended. Even after the price fell below a profitable level, in the "nineties," both

the acreage and the crop continued to increase in spite of numerous efforts to restrict production; and when the price rose again, the increase was very rapid, reaching a maximum in 1911, when 16,250,276 bales were grown on 36,045,000 acres. In the meantime, however, some thoughtful southern planters, and many northern farmers who have recently settled in the South, have rotated various forage crops, corn, and other grains with cotton, and raised more hogs and cattle, while others have grown vegetables, fruits, and other special crops. In this way the South is now producing much more of its own food than ever before, and also shipping to the North large quantities of fruits and vegetables and some other agricultural products besides cotton. Diversified farming, however, must be carried much farther before the South will attain her true destiny in agriculture. While she will continue to grow cotton, and probably in increasing quantities, she really has wonderful opportunities for the further development of stock raising, dairy farming, corn culture, the growing of fruits and vegetables, and numerous profitable special cultures. Her agricultural revolution has only fairly begun. On the other hand, her industrial revolution, although long delayed, is already well under way. Until about 1880 she seemed utterly oblivious of her exceptional facilities for manufacturing,—her extensive coal and iron deposits, fine water powers, rich virgin forests, abundant supply of cotton and other raw materials, and her abundance of cheap and tractable labor. Then she suddenly awoke, and, with the aid of northern capital and managers, made amazingly rapid progress in manufactures. Some idea of this progress will be derived from a few figures. The capital invested in southern manufactures rose from \$257,000,000 in 1880 to \$2,500,000,000 in 1910; the value of their output, from \$457,400,000 to

\$2,637,000,000. In 1910 the capital invested in southern manufactures was about the same as that of New England, and the value of their output was nearly as great. In the South Atlantic states alone each of these items was more than half as large as in New England.

The greatest development has naturally been in cotton manufacturing. In 1910 North Carolina ranked next to Massachusetts in the value of her output of cotton goods; South Carolina, third, Rhode Island, fourth; and Georgia, fifth. The southern mills have been equipped with all the latest improvements, and on the average are much more efficient than those of New England. In 1913 they had 39 % of all the cotton spindles of the country, and consumed 136,000 more bales of cotton than all the northern mills. The southern output, however, is not yet as valuable as might be inferred from the relative spindle capacity. The South makes chiefly medium and coarse yarn and cloth, the demand for which is many times as great as for higher grades. In fact, many southern mills specialize in coarse cottons, both for home use and for export, especially to China and other parts of the Far East. Consequently they have not suffered as much from industrial depressions as New England mills, which have often had to resort to auction sales to dispose of their surplus. But cotton manufacturing is not the only great industry in the South to-day. The development of iron and steel manufactures in Alabama has recently been very rapid. Modern slaughtering and packing houses and flour mills have been established. The manufacture of naval stores, in connection with the new development of lumbering, is vastly more extensive than ever before. Pressed bricks are being manufactured on a very large scale in Georgia, Alabama, and Florida, even for export; Georgia also has extensive terra-cotta works. The vast stores of

phosphates in the South are being developed; marble is being quarried in Georgia and Tennessee; the rich marine resources (sponges, oysters, and other fish) along the 6000 miles of southern littoral are being developed. In these various ways the South is now atoning for past indolence and mistakes. It would seem that her remarkable development and situation would soon make her the natural provider of many manufactured goods for the West Indies and northern South America, while the Panama Canal ought to aid her greatly in developing trade with western South America and other Pacific countries, and thus release her from dependence upon one great staple export, cotton.

341. Exports. There have been some notable changes in the character of our exports during this period. Agricultural products, which averaged about 80 % of our total exports, 1855-1880, fell from 84.3 % in 1880 to 46.3 % in 1913, although they more than doubled in value. There were also great changes in the relative importance of different agricultural exports. Foodstuffs became much more important than cotton, tobacco, and other agricultural exports. For a time breadstuffs alone became more important than cotton, which had long been our leading export. Before the Civil War much of our wheat was sold in the South, but this war at once led to large wheat exports to Europe. These decreased for a time, when southern markets were reopened, but it was not long before they again began to increase. New wheat lands in the West, worked largely by modern machinery, greatly increased the crop, while its marketing, both at home and abroad, was facilitated by the rapid building of railroads, improved lake carriage, numerous elevators, and the growth of produce exchanges with careful classification and grading, which not only aided buying and

selling but made possible the cheap bulk carriage of grain. At the same time the profits of grain dealers and producers were increased by lower transportation and storage costs. Moreover, after 1870 the rapid extension of the new gradual reduction and roller process made our flour acceptable in Europe and elsewhere, so that more of it was exported. Consequently our wheat and flour exports increased very rapidly, reaching a maximum of 235,000,000 bushels in 1902. Since then, however, these exports have fluctuated widely and tended toward rapid decrease (only 44,000,000 bushels, 1905), both Russia and Argentina usually being ahead of us. Our corn and cornmeal exports increased twentyfold, 1870-1900, averaging 192,000,000 bushels during the five years ending in 1900. These exports have also decreased and fluctuated greatly since 1900 (25,000,000 bushels, in 1909; 49,000,000, in 1913), Argentina having taken our place as the leading exporter. Meat also became a very important export in this period, owing to the development of refrigeration on cars and ships. Our exports of meat products (lard, bacon, hams, oleo products, pork, beef, tallow, canned meat, etc.) rose from \$8,000,000 in 1860 to \$208,290,000 in 1906, but have decreased in recent years (\$150,662,633 in 1913). Considering our food exports as a whole, they steadily decreased from 55.8 % of our total exports in 1880 (and previously sometimes as high as 75 %) to 19.3 % in 1912, while their total value remained about stationary. Unusually large exports of wheat and oats in 1913 made the total and the percentage somewhat larger, but this does not alter the general tendency. Cotton has regained its former position as our leading export, with a value \$156,000,000 greater than that of all our food exports in 1912, and about 80 % of that of all our raw-material exports.

In marked contrast to the relative decline of our agricultural and food exports is the tremendous growth of our exports of manufactures, which have increased 2349 % since 1860, nearly tenfold since 1880, and over sixfold since 1895, while they rose from 14.78 % of our total exports in 1880 to 48.8 % in 1913. Iron and steel and their manufactures are the most important exports of this class. They rose from \$25,542,208 in 1890 to \$304,605,797 in 1913, not including (in 1913) agricultural implements (\$40,572,352), automobiles and their parts (\$31,253,533), electrical machinery and appliances (\$26,772,816), passenger and freight cars (\$15,378,806). Machinery exports alone (including electrical) were \$157,326,731. "American locomotives, running on American rails, now whistle past the pyramids and across the long Siberian steppes. They carry the Hindoo pilgrims from all parts of their empire to the sacred waters of the Ganges." Our bridge builders are at work on every continent; our reapers and threshing machines are running wherever there are large fields of grain; our cutlery competes successfully with British cutlery even in Sheffield; our sewing machines, typewriters, typesetting machines, printing presses, duplicators, electrical apparatus, cash registers, windmills, motor cycles and many other manufactures of this class are either monopolizing or competing successfully in markets in every part of the world. Copper ranked second among our exports of manufactures in 1913 (\$140,164,913). Formerly we were dependent upon other countries, especially Chile, for this metal, but the Lake Superior mines were already supplying the home demand at the beginning of this period, while new mines in Arizona and Montana, and the fuller development of others, have furnished, since 1880, increasing exports. Refined mineral oil is our next largest manufactured export. We began exporting petroleum on a small

scale soon after 1860, but the recent rapid increase in output, due to the discovery of many new oil fields, the use of tank cars and pipe lines, and other improvements, has furnished a very large surplus for export (\$129,667,000 in 1913). Leather and manufactures, especially boots and shoes, furnished \$63,893,351 of our exports in 1913; cotton manufactures, \$53,743,977. Other important exports are timber, lumber, woodenware, turpentine, rosin, paper and manufactures, chemicals, drugs, medicines, rubber goods, paints, varnish, photographic goods, twine, tobacco manufactures, nickel, cement, brass, brassware, earthenware, and glassware.

342. Imports. The most striking change in our imports has been the relative decrease of manufactures and increase of raw materials, which give further evidence of our industrial development. In 1860 crude raw materials made up 11.2 % of our total imports; manufactures for further use in manufacturing, 9.9 %; manufactures ready for consumption, 48.7 %. In 1913 the corresponding figures were 35, 19.3, 22.5. In 1913 the chief imports of the first two classes (with their value in millions) were: hides and skins, 117.4; chemicals, drugs, and dyes, 99.5; rubber, 99.4; silk, 82.2; copper, 59.5; tin, 53.1; vegetable fibers (Egyptian cotton, hemp, jute, butts, sisal, flax, etc.), 49.1; oils, 38.1; tobacco, 36; wool, 35.6; cabinet and pulp woods, 13.7; diamonds, 12.3. The leading imports of manufactures ready for consumption (in millions) were: cotton manufactures, 66; art works, 52.4, burlaps, 37.8; linens, 22.4; silk manufactures, 22.2; paper and manufactures, 21.5; iron and steel manufactures, 19.5; wool manufactures, 16.3; earthenware and chinaware, 10; toys, 8, wood manufactures, 7.9; gloves, 7.7. Our imports of foodstuffs decreased relatively from 29.9 % of the total imports in 1860 to 22.4 % in 1913. These consist chiefly of tropical and semi-tropical

products, which we either cannot produce ourselves or can buy abroad for less than it would cost us to produce them. The chief imports of this class in 1913 were (in millions)· coffee, 119; sugar, 104; fruits and nuts, 43; wines and other liquors, 22 3; tea, 17.4; cacao, 17.4. We have made strenuous efforts to produce our own sugar, but thus far have not succeeded. Sugar cane has been grown in the South, especially in Louisiana, for over one hundred years, and most of the time it has been protected by duties or bounties, but the danger of early frosts, and other causes, have prevented any great progress. Before the recent tariff, sugar-beet culture was making considerable progress in various states, but our combined cane- and beet-sugar output still supplies only a small part of the home demand

343. Excess of exports. In 1869 our imports were \$131,388,682 greater than our exports, but in 1874 we began to have an excess of exports, which increased slowly up to 1890 (\$68,500,000), and very rapidly from 1890 to 1901 (\$664,600,000), then fluctuated considerably, reaching \$666,431,554 in 1908, nearly as much in 1913, and averaging \$476,700,000 during the past ten years. The actual excess, however, is probably much less than the nominal excess, owing to undervaluation of imports and to smuggling. The real excess is offset by freight payments to foreigners, interest and profits on foreign capital invested here, remittances to Europe by prosperous immigrants, and expenditures by our tourists abroad.

344. Leading ports. At one time during the Civil War about 70 % of our foreign trade passed through New York, but the reopening of southern ports at once cut down her big lead, especially in exports, while many special causes have since led to a gradual spreading out of our foreign trade through many other ports, both northern

and southern. Consequently New York has steadily become relatively less important in both export and import trade, but especially in exports. Her percentage of our total foreign trade fell to 56 in 1882, to 45.7 in 1913, her share of our imports increased slightly for a time (69 % 1862, 70 % 1882), but fell to 57.8 % in 1913; her percentage of exports fell steadily from 70 in 1862 to 46 in 1882, and to 37.2 in 1913. In spite of this relative decline, however, no other port has yet secured nearly so large a share of either exports or imports as New York, although some old ports are making rapid gains and some new ones have become very important. New Orleans and Galveston are now running a very close race for second place in our total trade; in 1913 Galveston had 6.75 % of this, 11.4 % of our exports, but only .43 % of our imports. The corresponding figures for New Orleans were 6, 7, 45. The present rank of other leading ports is shown by their percentages of our total trade, exports, and imports, respectively, as follows. Boston, 5, 2.8, 81; Philadelphia, 4, 3.1, 5.1; Baltimore, 3.5, 4.7, 18; San Francisco, 3.2, 2.7, 3.4; Puget Sound, 27, 2.5, 28. Our next most important ports (in order) are Buffalo Creek, Detroit, Savannah, and Chicago. Newport News, Norfolk, Portsmouth (Va.), Pensacola, and Pearl River (Miss.) have also become quite important.

345. Distribution of trade. Since 1880 we have not only greatly increased our total sales to all leading countries, but have furnished an increasing share of their total purchases; this has been accompanied by increasing imports from most of them. Yet the geographical distribution of our trade, especially exports, has changed very greatly. This is a natural result of the changed nature of our exports and imports, but it is partly due to special efforts to extend trade in certain directions. Our sales to Europe

have more than doubled, but in 1880 she took 86.1 % of our total exports, in 1913 only 60 %. During the same period our sales to North America increased nearly ninefold, and her percentage of our total exports rose from 8.3 to 25; those to South America increased over sixfold, and the percentage from 2.8 to 5.9 (it had been 6.2 % in 1830); those to Asia increased tenfold, and the percentage from 1.4 to 4.7 (8.5 in 1905); those to Oceania increased nearly twelvefold, and the percentage from .82 to 3.2; those to Africa increased nearly sixfold, and the percentage from .61 to 1.2 (2.7 in 1903). Considering only our exports of manufactures, those to South America increased 310 %, 1900-1912; those to North America, 225 %; to Europe, only 59 %; to Asia, 60 %; to Oceania, 80 %; to Africa, 127 %. While the total value of our exports of manufactures to Europe is still much greater than to any other continent, North and South America together took more of our manufactures in 1912 than Europe. Our imports from different continents have fluctuated so much that we will compare annual averages for the two five-year periods ending in 1880 and 1913. During both periods Europe furnished nearly 50 % of our total imports; North America's percentage fell from 24.5 to 19.8, South America's from 13.6 to 12.4, Africa's from 1.6 to 1.4; Asia's rose from 9.6 to 14.1, Oceania's from 1.07 to 2.14 (4.36 in 1898). Considering both imports and exports, Europe's share of our total foreign trade fell from 72.5 % in 1880 to 55.4 % in 1913, while North America's percentage rose from 13.3 to 22.9, Asia's from 5.2 to 9.1, South America's from 7 to 8.5, Oceania's from 1.4 to 2.8, Africa's from .6 to 1.3.

Our trade with the United Kingdom is still far larger than that with any other country, but it is growing relatively less important. Our sales to her were \$34,000,000

less in 1913 than in 1901, while her percentage of our total exports fell from 42.4 to 24.2. Her sales to us more than doubled, but they were only 16.3 % of our total imports in 1913 (17.4 %, 1901). Her share in our total trade fell from 33.4 % to 20.9 %. On the other hand, Germany and France nearly maintained their share in our trade (12.2 % and 6.6 %, respectively, 1913). The next most important European countries in our trade, with their percentage shares in the same in 1913, were: the Netherlands, 3.8; Italy, 3; Belgium, 2.5; Russia, 1.3; and Spain, 1.3. Outside of Europe, Canada is far the most important country in our trade, with a somewhat larger share than Germany (12.5 %, 1913). The percentage shares of other leading countries in our 1913 trade were: Cuba, 4.6; Brazil, 3.8; Japan, 3.5; Mexico, 3.08; British India, 3.07; Argentina, 1.9; British Australasia, 1.6; China, 1.4; the Philippines, 1.09; Chile, 1.02. The student should trace at least the general trend of our trade with all these countries during the present period, and is advised to do so in connection with his study of subsequent chapters dealing with their recent development. In the remaining pages of this chapter we shall content ourselves with a general consideration of our recent trade relations with those countries and regions that seem to offer the best opportunities for the further expansion of our commerce, hoping that the student will not neglect the study of other countries and the opportunities which they seem to offer to our exporters and importers.

346. Our trade with Latin America had been very unsatisfactory for a long time prior to the First Pan-American Congress. During the preceding twenty years our exports thither increased a trifle, but their percentage of our total exports fell from 14 to 9. The reciprocity treaties provided for in our tariff of 1890 gave a momentary spurt to

our trade with Latin America, which increased 37.3 % in two years; but by 1898 it had fallen 21 % below the 1890 level. The reasons for the slow growth of this trade up to 1890, and its decline from 1892 to 1898, are not hard to find. The easy sale of our large surplus of breadstuffs and raw materials and comparatively small surplus of manufactures in Europe and other well-known markets, coupled with ignorance of the scope of the rapidly expanding Latin-American market, made most of our exporters unwilling to make any great effort to capture it or to cater to its special demands as to goods, packing, long credits, etc. Ample opportunities at home made our capitalists indifferent to investments in Latin America, which would have greatly aided the development of our trade there. Besides, our demand for Latin-American products was at that time comparatively small, especially during the long depression following the panic of 1893. Even the efforts of the few exporters and importers who were interested in this market were seriously hindered by poor transportation facilities, unequal going and coming cargoes, poor international banking facilities, ignorance of the Spanish and Portuguese languages, and to a certain extent by a preference for European goods on the part of European immigrants in Latin America.

Since 1898 this trade has increased nearly fourfold, reaching \$799,188,396 in 1913, which was 19 % of our total trade, 25 % more than the United Kingdom's trade with these countries, and nearly twice as much as Germany's. But the greater portion of this increase was due to our growing demand for Latin-American products; our imports of these products rose from \$136,854,235 in 1898 to \$457,431,877 in 1913, and were still larger in 1914. On the other hand, our exports to Latin America did not materially increase until 1904, and their growth since

then has been largely unsolicited, except by a few progressive exporters who had become interested in this trade. Yet in spite of the continued indifference of most of our exporters, our sales to Latin America have recently become quite large (\$341,756,519 in 1913), about the same as the United Kingdom's and 58.2 % more than Germany's. We buy more from all the important Latin-American countries, except Argentina, than we sell to them. Of course these imports are of great value to us, consisting chiefly of necessary foodstuffs and raw materials needed to keep our labor and capital employed, but they would be much more satisfactory if they were offset by at least equally large exports. Evidently, therefore, there is room for much further expansion. In many ways Latin America offers us a peculiarly favorable field. She has a total population of about 75,000,000, which is increasing more rapidly by natural reproduction than ours; when the new tide of immigration sets in after the European War, the increase will be still more rapid. Her total foreign trade in 1913 (including all of the West Indies) was \$3,134,000,000 (53.4 % exports), and is growing rapidly. For many years to come she will continue to import an increasing quantity of manufactures which we could easily furnish, while we shall need more and more of many of the products which her rapid development will provide. As long as our exports were predominantly agricultural, Europe was our best customer, but now that we have to export manufactures chiefly, only a few European countries offer as good a field as Latin America. The recent interruption of our European trade by the war suddenly revealed this fact to our exporters, and awakened a more general interest in Latin-American trade. And this is an opportune time to make more systematic efforts in this direction. Over half of Latin-America's trade in 1913 was

with countries now at war or under war embargoes. If our financial and commercial interests can find the means of supplying what Latin America needs, and of buying what she must sell, we ought to be able to capture a large part of this trade. Transportation facilities have recently been greatly improved. The lack of vessels under our own flag is no great obstacle. There are plenty of others (running direct, without shipping via Europe) sufficiently rapid, with numerous and regular sailings, and with freight rates as low and often much lower than those from Europe. This trade, however, will not come to us without vigorous and systematic efforts. We must study very carefully the conditions in all the Latin-American countries (which differ widely in many respects), cater to their various demands, provide well-trained salesmen who can speak Spanish and Portuguese fluently, equalize going and coming cargoes as far as possible, and perhaps establish American banks in these countries (British, German, Spanish, and Italian banks are already there); but above all we must show a tangible interest in their further development. If we do all this, we can surely increase our trade with these countries very greatly, for they have already shown themselves willing to meet us halfway.

347. Russia, in spite of her tariff, offers us greater opportunities for future trade expansion than any other country in Europe, if not in the whole world, provided we court her friendship. Some even claim that she offers us greater opportunities than all Latin America. Her population is over twice as large, and her potential per capita consumption is far greater. Most of the Latin-American people live in a warm climate requiring little clothing, no heating, and the simplest kind of shelter, while Russia's people have all the natural demands created by a cold climate. As Russia's per capita wealth increases, her

demand for numerous products that we can readily furnish will become enormous, while she will have vast quantities of various raw materials and even foodstuffs which we shall want. In our zeal for capturing Latin-American trade we should not overlook the great and rapidly developing Russian Empire. Our direct trade with this empire has more than trebled since 1901. In 1913 our direct imports from Russia amounted to \$29,315,217, about 80 % of which were hides, skins, furs, carpet wool, flax, hemp, fusil oil, and glycerin. In the same year our direct sales to her were \$26,465,214, but these figures are very misleading. For example, our direct exports of cotton to Russia in 1913 were only \$4,523,929, yet she consumes yearly over \$50,000,000 worth of our cotton. Similarly, she imports indirectly very large quantities of our other products (cf. Chap. XXXIII). When the European War broke out, her direct and indirect imports of our products were at least \$150,000,000 yearly. Why should not our exporters bestir themselves and sell all these goods directly to Russia, and even increase their sales much further as the Russian demand increases? At the same time we could advantageously take much more of her products, especially as some of them would otherwise have to be bought indirectly under present trade conditions, thus giving the profit on transshipment to others

348. China in recent years has been a field of alternate hope and despair for our exporters. Our direct exports to that country (not counting those through Hongkong) rose from \$10,405,834 in 1901 to \$53,453,385 in 1905, only to fall back to \$21,326,834 in 1913. This great fluctuation and small net growth was due chiefly to the neglect of this market by many of our exporters, the failure, on the part of those who did make efforts there, to study Chinese conditions and demands, and the recent aggressive

competition of Japan (cf. Chap. XXXIV). Some of our exporters mistook temporary and local demands in China for permanent and general demands, and were in some cases badly disappointed. For example, no sooner had the Great Northern Railroad built two large steamers for carrying flour from Washington and Oregon to China, than China had flour mills of her own. Similarly, the recent building of other modern mills in China, notably cotton factories and blast furnaces, has dimmed the prospects of some of our other exporters to that country. We cannot reasonably hope to build up a permanent trade with China in the simple manufactures for which she has raw materials. We may continue to sell coarse cottons, crude steel, and even flour for a time, though not for very long. But if the "open door" can be maintained by skillful diplomacy, there will be an increasing demand in China, as she more fully awakes, for our machinery, high-class railroad equipment (steam and electric), agricultural implements, typewriters, cash registers, duplicators, sewing machines, and many other high-class manufactures. And China has much to sell us that we want. Although our purchases from her have fluctuated somewhat during the past twelve years, they have more than doubled (\$39,000,000 in 1913), and we can advantageously take more from her in the future.

References — Use the bibliographies and references mentioned in Chapter XXVIII, and the following *Adams*, America's Economic Supremacy, *Bakenhus*, The Panama Canal, *Blakey*, Beet Sugar Industry and the Tariff, *Bonsal*, The American Mediterranean, *Buck*, The Granger Movement, *Conant*, The United States in the Orient, *Copeland*, Cotton Manufacturing Industries in the U S (Harv Univ), *Coulter*, Cooperation among Farmers, *Fite*, Soc and Indus Conditions in North during Civil War, *Fisher*, Purchasing Power of Money, *French* (ed), New England — What it Is and What it Is to Be, *Gephart*, *Hugginson*, Tariffs, *Hough*, Ocean Traffic, *Johnson*, Panama Canal Traffic and Tolls, *Mallock*, The Nation as a Business Firm; *McFarland*, Fisheries;

McKenzie, The American Invaders, *Miller and Storms*, Economic Conditions in the Philippines, *Mills*, Our Inland Seas, *Official Report*, *Nat'l Foreign Trade Conv at Washington* (1914), *Phillips*; *Raper*, Railway Transportation, *Shadwell*, Industrial Efficiency, *Sturges*, American Chambers of Commerce, *U S Dept Agric*, Bul 74, Inland Boat Service, *Whelpley*, Trade of the World. Use freely the *Statesmen's Year Books*, *American Year Books*, *Hawaiian Almanacs*, *Census Reports*, *Statistical Abstracts*, *Consular and Trade Reports*, *Commerce and Navigation*, *Monthly Summaries*, and various other documents. There are many periodical articles covering this and the previous period. These should be used, but with care. The *Amer. Econ. Review* is a good guide to this literature, as well as to new books. The following are some of the good periodical articles: *Amer. Econ. Rev.*, I, 50, Trade with South America, II, 814, Transportation and Competition in South American Markets, IV, 25, New Income Tax, IV, 47, Farm Credit Conditions in a Cotton State, IV, 93, Immigration Problems, IV, 1, The Federal Reserve Act, *Amer. Hist. Rev.*, XIX, 80, Position of Amer. Econ. History, *Amer. Rev.*, L, 469, Our Trade Opportunity in Latin-America, *Ann. Amer. Acad.*, XIX, 370, Our Trade with Cuba, Philippines, Hawaii, and Porto Rico, XXXVII, 628, Current Misconceptions of Latin-Am. Trade, XXXVII, 638, Investment of Amer. Capital in Latin-Am.; XXXVII, 648, Commerce with South America; XXXVII, 663, Monetary System of Chile, XXXVII, 731, Commercial Relations of Chile, XXXVII, 738, Closer Commercial Relations with Latin-Am., XLII, Industrial Competition and Combination, XLIX, The Negro's Progress in Fifty Years, *Jour. Pol. Econ.*, XXII, 1, Tariff of 1913, XXII, 821, Work of Rural Organization, *No. Amer. Rev.*, CXCVIII, 439, Vital Decade of our Commercial History, CXCVIII, 320, National Aid to Good Roads; *Quar. Jour. Econ.*, X, 247, Localization of Industries, XXVII, 1, Agricultural Development in the U S, *Scribners*, XXXI, 1, American Commercial Invasion of Europe, *Yale Rev.*, n.s., III, 708, New Opportunities in the Pacific.

PUBLISHER'S NOTE - The natural continuation and completion of this book would involve a discussion of present-day conditions in Europe and other parts of the globe affected by the Great War. It is impossible to write with certainty on these topics until that war is ended, therefore in the present edition it has seemed advisable to omit them altogether.

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